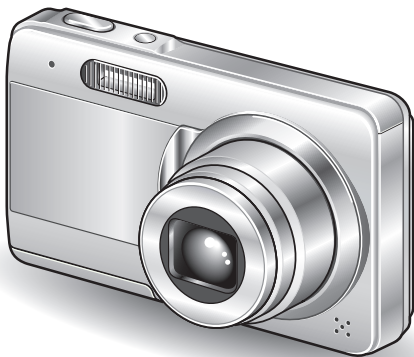




## INSTRUCTION MANUAL

**Digital Camera**

**VPC-E10EX  
VPC-E10  
VPC-E10GX**



### **Important note**

This manual explains how to safely operate the VPC-E10EX, VPC-E10 and VPC-E10GX.

Any information regarding only one of these products will be labeled as such.

Please read these instructions carefully before using the camera.  
Make sure to read and understand the separate booklet "SAFETY MANUAL".  
Keep this manual in a safe place for later reference.

## Warning

TO PREVENT THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE

## ■ FOR AMERICAN USERS

The following advisory is included in accordance with the laws of the State of California (USA):

### WARNING:

This product contains chemicals, including lead, known to the State of California to cause cancer, birth defects or other reproductive harm. **Wash hands after handling.**

- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### Declaration of Conformity

Model number: VPC-E10

Trade Name: SANYO

Responsible party: SANYO FISHER COMPANY

Address: 21605 Plummer Street, Chatsworth, California 91311

Telephone No.: (818) 998-7322

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

## ■ FOR CANADIAN USERS

- This Class B digital apparatus complies with Canadian ICES-003.

## ■ FOR EU USERS



### **Note:**

- This symbol mark and recycle system apply only to EU countries and do not apply to countries in other areas of the world.

Your SANYO product is designed and manufactured with high quality materials and components which can be recycled and reused.

This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste.

Please dispose of this equipment at your local community waste collection/recycling centre.

In the European Union there are separate collection systems for used electrical and electronic products.

Please help us to conserve the environment we live in!

### **SANYO FISHER Sales (Europe) GmbH**

Stahlgruberring 4, D-81829 München, Germany

### **SANYO Electric Co., Ltd.**

1-1, Sanyo-cho, Daito City, Osaka 574-8534, Japan

## FOR RUSSIAN USERS



AR46

This product certified by official certification company which is authorized by Russian Federation.

## ■ Symbols used in this manual

- HINT** Points giving some extended instructions or special points to pay attention to.
- CAUTION** Points that require special attention.
- (page xx)** Refer to the page indicated for detailed information.

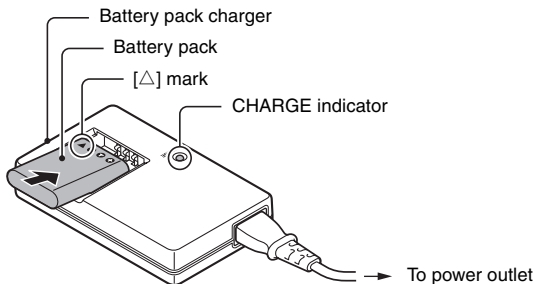
You may find the answers to questions or problems concerning camera operation in the sections “COMMONLY ASKED QUESTIONS” (page 130) and “TROUBLESHOOTING” (page 136).

# SHOOT, PLAY BACK AND SAVE

## Install the battery pack

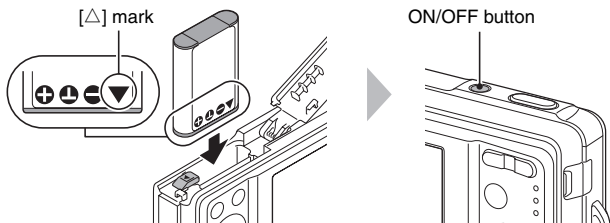
### 1 Use the supplied charger to charge the battery pack.

- The CHARGE indicator is lit during charging.
- The CHARGE indicator will turn off when the battery pack is fully charged.
- Charging takes approximately 2 hr. 30 min.



### 2 Open the battery/card compartment cover, and insert the battery pack.

- The battery/card compartment cover is located on the bottom of the camera.
- Press the ON/OFF button to turn the camera on.



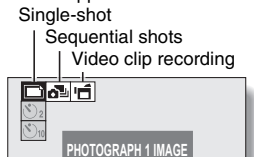
# SHOOT, PLAY BACK AND SAVE

**Before capturing those important shots, be sure to first take a test shot to confirm that your camera is set up and ready to go**

- Sanyo declines any claim for compensation for recorded contents etc. in case of photographing or recording failure due to a chance camera or card flaw.

## Shooting

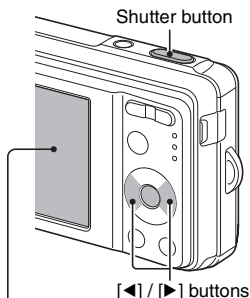
- 1 Press the [▶] button.**
- The shooting mode menu appears.



- 2 Press the [◀] or [▶] button to select the shooting mode.**

- 3 Press the SET button.**
- The shooting mode is indicated by an icon in the upper left area of the monitor.

- 4 Press the shutter button.**
- Single-shot mode:**  
A still image is captured.
- Sequential shots mode:**  
Shooting begins. Release the shutter button to discontinue shooting.
- Video clip recording mode:**  
Recording begins. To stop recording, press the shutter button again.



- : Single-shot mode
- : Sequential shots mode
- : Video clip recording mode

**<Shooting mode>**

## Playback

### ■ Still image playback

#### 1 Press the playback button [▶].

- The display switches to the Playback Screen.
- To view other images, press the [◀] or [▶] button.
- If the playback button [▶] is pressed, the display returns to the Shooting Screen.

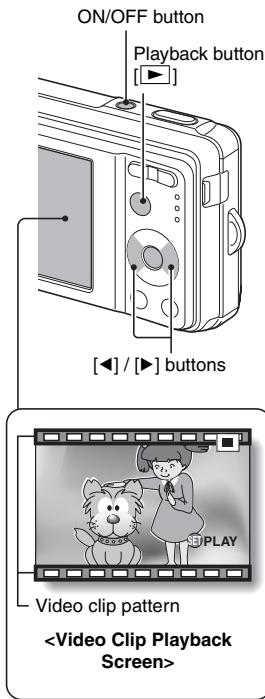
### ■ Video clip playback

#### 1 Press the playback button [▶].

- The display switches to the Playback Screen.
- Press the [◀] or [▶] button to display the video clip you wish to play back.
- Video clips are indicated by a video clip pattern along the top and bottom of the screen.

#### 2 Press the SET button.

- Playback of the selected video clip begins.
- If the playback button [▶] is pressed again, the display changes to the Shooting Screen.



## When you are finished taking pictures...

Press the ON/OFF button to turn the camera off.

---

## SHOOT, PLAY BACK AND SAVE

---

### Save the photographed image data to your computer (Windows XP)

The Adobe Photoshop Album Starter Edition (in this manual referred to as Photoshop Album SE) program in the supplied SANYO Software Pack lets you easily copy the data from your camera to your computer.

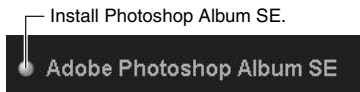
## Install Photoshop Album SE

---

- 1 Set the supplied CD-ROM (SANYO Software Pack) in your computer's CD-ROM drive.**

- The installation window opens.

- 2 Click on the application program you wish to install.**



- After clicking on an application program, follow the instructions shown on the monitor to install the program.
- When the installation is complete, the product registration window will appear, but click on the Exit button to close the window.

- 3 In the installation window, click on [Finish].**

- The installation window closes.
- Remove the CD-ROM from your computer's CD-ROM drive.

#### <About the Kodak online service>

- When the installation window closes, a dialog box to connect to the website introducing Kodak's online service appears. Check the [No thanks !] option button, and then click on the [OK] button.



# Copy data from your camera to the computer

Connect your camera to a computer, and copy the desired data to the computer.

---

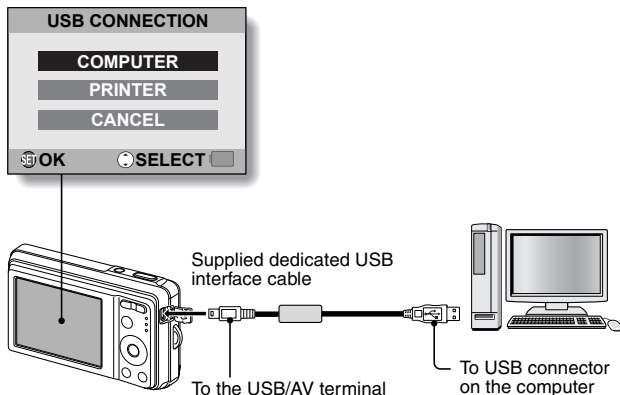
## 1 Turn on the computer, and use the supplied dedicated USB interface cable to connect your camera to the computer.

- Connect the cable between the camera's USB/AV terminal and the computer's USB connector.

---

## 2 Turn on the camera (page 23).

- The USB Connection Screen appears on the camera's monitor.



---

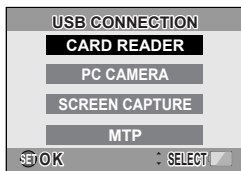
## SHOOT, PLAY BACK AND SAVE

---

---

### 3 Select “COMPUTER”, and press the SET button.

- The screen to select the connection mode appears.



---

### 4 Select “CARD READER”, and press the SET button.

- The screen to import data to the computer appears on your computer's monitor.

---

### 5 Click the [IMPORT] button.

- Copy the camera data to the following folder:  
My Pictures\Adobe\Digital Camera\Date folder
- When the data has been successfully copied, a dialog box appears to confirm whether or not you wish to delete the original data from the camera.

---

### 6 Click the [YES] button if you wish to delete the data from the camera's memory, or [NO] if you do not wish to delete it.

- The Photoshop Album SE catalogue screen appears.
- The data you copied appears on the computer monitor. Confirm that the desired data was correctly copied. If it was not copied, from the [Import] menu select [From camera, mobile phone or card reader], and copy the desired data.

---

## 7 Click the close button.

- Photoshop Album SE closes.

### **About video clip files recorded with this camera**

- You can use Apple's QuickTime 3 or later version to play back video clips on a computer.
- QuickTime can be downloaded from the following website:  
<http://www.apple.com/quicktime>

---

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# QUICK SEARCH BY OPERATION

Your camera has an abundance of convenient features and functions. From creating precisely the photo you want, to viewing images using various techniques, you can locate the exact operation for your purposes in the following table.

Shooting/recording		
Basic operation	Convenient functions	Additional functions
<b>Getting started shooting</b> <ul style="list-style-type: none"><li>• “Recording a video clip” on page 49</li><li>• “Shooting single shots” on page 37</li><li>• “SHOOTING SEQUENTIAL SHOTS” on page 47</li></ul>	<b>Change the setting to sequential shots</b> <ul style="list-style-type: none"><li>• “How to use the best shot feature” on page 56</li></ul> <b>Log the date and time of your photos</b> <ul style="list-style-type: none"><li>• “DATE AND TIME SETTING” on page 25</li><li>• “DATE IMPRINT” on page 81</li></ul> <b>Zoom in on the subject</b> <ul style="list-style-type: none"><li>• “USING THE ZOOM” on page 58</li></ul> <b>Close-up photography</b> <ul style="list-style-type: none"><li>• “FOCUS RANGE” (macro mode) on page 63</li></ul>	<b>For more accurate focus</b> <ul style="list-style-type: none"><li>• “FOCUS RANGE” (manual focus) on page 63</li></ul> <b>Set the focus to a narrow range</b> <ul style="list-style-type: none"><li>• “FOCUS AREA SETTING” on page 74</li></ul> <b>Check the focus status</b> <ul style="list-style-type: none"><li>• “Zoom jump playback” on page 44</li></ul>
<b>Optimize the photo quality</b> <ul style="list-style-type: none"><li>• “RESOLUTION/VIDEO SIZE SETTING” on page 70</li></ul>		
<b>Capture fast-moving subjects</b> <ul style="list-style-type: none"><li>• “USING THE SCENE FUNCTION” (sports mode) on page 53</li></ul>		

Shooting/recording		
Basic operation	Convenient functions	Additional functions
<b>Shoot in dark conditions</b> <ul style="list-style-type: none"> <li>• "EXPOSURE CORRECTION" on page 80</li> <li>• "FLASH SETTING" on page 59</li> <li>• "USING THE SCENE FUNCTION" (night view portrait mode/fireworks mode/lamp mode) on page 53</li> </ul>		
<b>Increase the camera's sensitivity</b> <ul style="list-style-type: none"> <li>• "ISO SENSITIVITY" on page 77</li> </ul>		
<b>Photographing people</b> <ul style="list-style-type: none"> <li>• "USING THE SCENE FUNCTION" (portrait mode/night view portrait mode/cosmetic mode/face chaser mode) on page 53</li> <li>• "How to use the face chaser feature" on page 57</li> <li>• "FLASH SETTING" (red-eye reduction) on page 59</li> </ul>		
<b>Photographing landscapes</b> <ul style="list-style-type: none"> <li>• "USING THE SCENE FUNCTION" (landscape mode) on page 53</li> </ul>		
<b>Take a self-photo</b> <ul style="list-style-type: none"> <li>• "SELF-TIMER" on page 61</li> </ul>		
	<b>Make images lighter or darker</b> <ul style="list-style-type: none"> <li>• "EXPOSURE CORRECTION" on page 80</li> </ul>	<b>Measure the brightness of a specific area</b> <ul style="list-style-type: none"> <li>• "LIGHT-MEASURING MODE SETTING" on page 76</li> </ul> <b>Adjust the camera's sensitivity</b> <ul style="list-style-type: none"> <li>• "ISO SENSITIVITY" on page 77</li> </ul>
	<b>Change the color of the images</b> <ul style="list-style-type: none"> <li>• "USING THE SCENE FUNCTION" (monochrome mode/sepia mode) on page 53</li> </ul>	<b>Make white appear natural</b> <ul style="list-style-type: none"> <li>• "WHITE BALANCE" on page 79</li> </ul>

## QUICK SEARCH BY OPERATION

Playback		
Basic operation	Convenient functions	Additional functions
<b>Getting started viewing images</b> <ul style="list-style-type: none"> <li>• "Playing back the video clip" on page 50</li> </ul>	<b>Adjust the playback volume</b> <ul style="list-style-type: none"> <li>• "SOUNDS" on page 105</li> </ul>	
<ul style="list-style-type: none"> <li>• "Viewing still images" on page 39</li> </ul>	<b>Search for image data</b> <ul style="list-style-type: none"> <li>• "9-image display playback" on page 40</li> <li>• "Folder playback" on page 42</li> <li>• "Quick scroll playback" on page 41</li> </ul> <b>Magnify an image</b> <ul style="list-style-type: none"> <li>• "Magnifying (zooming in) the image" on page 43</li> </ul>	<b>Check the focus status</b> <ul style="list-style-type: none"> <li>• "Zoom jump playback" on page 44</li> </ul> <b>Change the orientation</b> <ul style="list-style-type: none"> <li>• "ROTATE IMAGE" on page 85</li> </ul>
<b>Slideshow playback</b> <ul style="list-style-type: none"> <li>• "SLIDESHOW PLAYBACK" on page 100</li> </ul>		
<b>Adjust the monitor brightness</b> <ul style="list-style-type: none"> <li>• "Adjust the monitor brightness" on page 35</li> </ul>		
<b>Playback on a TV</b> <ul style="list-style-type: none"> <li>• "CONNECTING TO A TV" (for playback) on page 121</li> </ul>		<b>Set the TV system</b> <ul style="list-style-type: none"> <li>• "TV SYSTEM SETTING" on page 109</li> </ul>



Data managing/processing		
Basic operation	Convenient functions	Additional functions
<b>Edit photos</b> <ul style="list-style-type: none"><li>• “BLUR CORRECTION” on page 87</li><li>• “CONTRAST CORRECTION” on page 89</li><li>• “RED-EYE CORRECTION” on page 91</li></ul>		
<b>Copy files from the internal memory to the card, or vice versa</b> <ul style="list-style-type: none"><li>• “COPY DATA” on page 93</li></ul>		
<b>Delete files</b> <ul style="list-style-type: none"><li>• “Deleting files” on page 45</li></ul>	<b>Protect images from accidental erasure</b> <ul style="list-style-type: none"><li>• “IMAGE PROTECT” on page 84</li></ul> <b>Format a card</b> <ul style="list-style-type: none"><li>• “INITIALIZING THE CARD MEMORY AND INTERNAL MEMORY” on page 114</li></ul>	
<b>Specify the number of prints and date imprint</b> <ul style="list-style-type: none"><li>• “PRINT SETTINGS” on page 95</li></ul>		
<b>View the settings that were in effect when the image/audio data was recorded</b> <ul style="list-style-type: none"><li>• “DISPLAYING IMAGE PROPERTIES (INFORMATION SCREEN)” on page 101</li></ul>		

---

## QUICK SEARCH BY OPERATION

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Using with a computer		
Basic operation	Convenient functions	Additional functions
<b>Use the camera as a card reader</b> <ul style="list-style-type: none"><li>• “BEFORE MOUNTING YOUR CAMERA” on page 6 in the SANYO Software Pack INSTRUCTION MANUAL</li><li>• “MOUNTING AND DISMOUNTING YOUR CAMERA” on page 9 in the SANYO Software Pack INSTRUCTION MANUAL</li></ul>		
<b>Copy files from your camera to a computer</b> <ul style="list-style-type: none"><li>• “Copy data from your camera to the computer” on page viii</li></ul>	<b>Using with Windows Vista</b> <ul style="list-style-type: none"><li>• “CONNECTING IN THE MTP MODE” on page 14 in the SANYO Software Pack INSTRUCTION MANUAL</li></ul>	
<b>Playback</b> <ul style="list-style-type: none"><li>• “About video clip files recorded with this camera” on page 8 in the SANYO Software Pack INSTRUCTION MANUAL</li></ul>		
<b>Using as a webcam</b> <ul style="list-style-type: none"><li>• “USING AS A PC CAMERA” on page 16 in the SANYO Software Pack INSTRUCTION MANUAL</li></ul>		
<b>Record an image of the computer screen</b> <ul style="list-style-type: none"><li>• “SCREEN CAPTURE” on page 23 in the SANYO Software Pack INSTRUCTION MANUAL</li></ul>		

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# CHECKING THE INCLUDED ACCESSORIES

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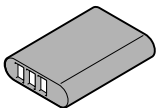
- Handstrap: 1



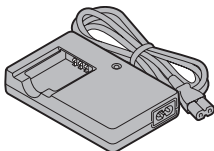
- SANYO Software Pack (CD-ROM): 1



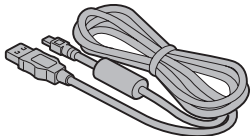
- Lithium-ion battery pack (battery pack): 1



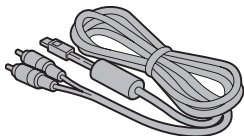
- Lithium-ion battery pack charger and power cord



- Dedicated USB interface cable: 1



- Dedicated AV interface cable: 1



- “SAFETY MANUAL” (safety precautions booklet)  
Please read this booklet carefully before using the digital camera.



- Quick Guide

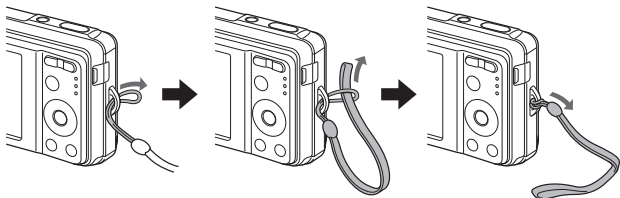


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## CHECKING THE INCLUDED ACCESSORIES

---

### Attaching the handstrap



## **Media cards that can be used with this camera**

The types of card that can be inserted into and used with this camera are:

- SD Memory Card
- SDHC Memory Card

## **What “card” means in this manual**

- In this manual, SD Memory Cards and SDHC Memory Cards that can be used in this digital camera are referred to as “card”.

---

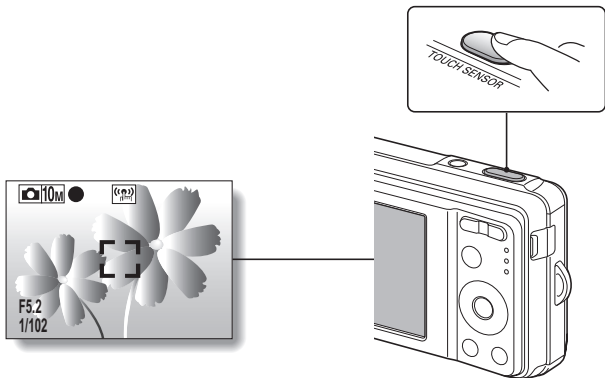
# GETTING THE MOST OUT OF YOUR CAMERA

---

It's loaded with lots of functions that are possible only in a digital camera, including a super-quick focus, an easy-to-understand guidance display on a large screen, a more extensive scene function, and more.

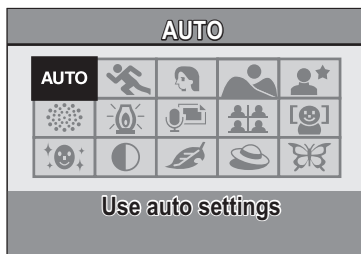
## **You'll never miss a photo opportunity, thanks to the quick focus: Touch focus (page 69)**

Just touch the shutter button lightly, and the touch sensor automatically focuses the image (touch focus).



### ■ Abundant scene functions (page 53)

You can select from a variety of preset settings (aperture, shutter speed, etc.) for specific shooting conditions.



### ■ Photo correction feature (page 87)

Your camera can correct some problems in still images—red eyes resulting when the flash is used (red-eye effect) and blurred images due to camera movement (camera shake)—to produce more natural-looking photos. In addition, hazy images can be enhanced to show sharper outlines (contrast correction).



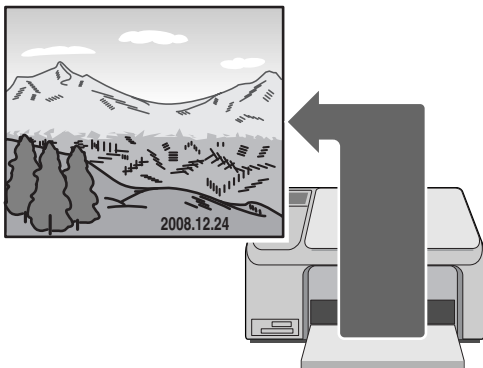
---

## GETTING THE MOST OUT OF YOUR CAMERA

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### ■ Date/time stamp feature (page 81)

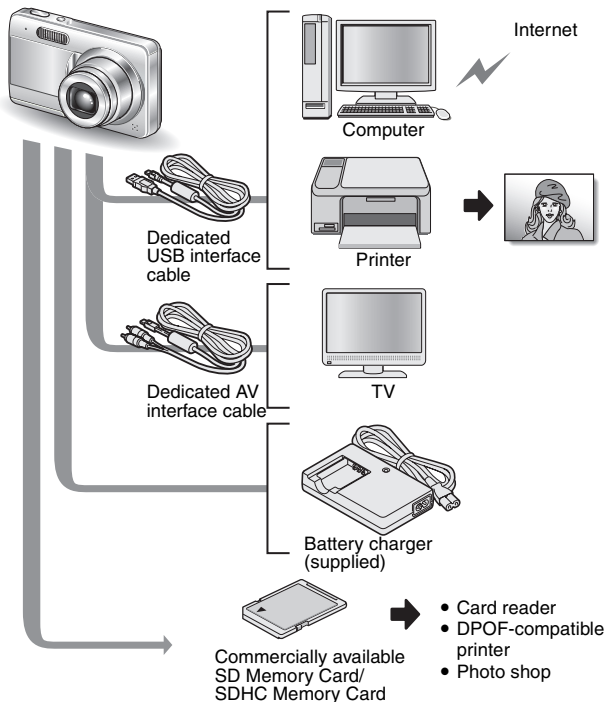
Use the “date stamp feature” to print the capture date and time on your photo, even if your printer does not have a date stamp function.





# SYSTEM MAP

The included accessories can be used to connect your camera to a computer, printer or TV. By connecting the camera to your computer, you can, for example, copy your photos to the computer's hard disk. You can connect it to a printer for direct printing of your photos. Or take the card to a photo shop to have your photos printed there.

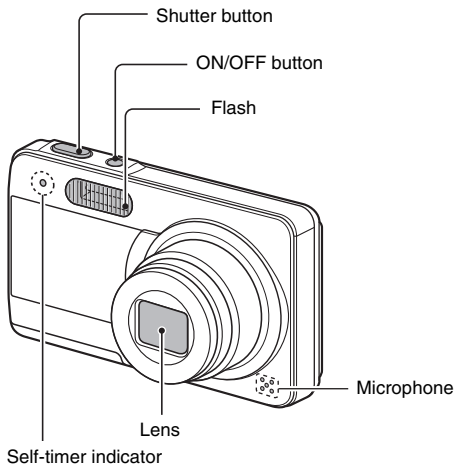


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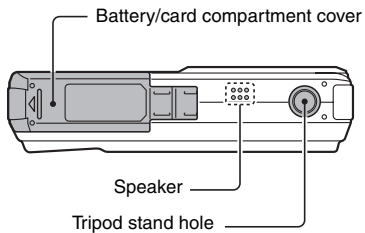
# PARTS NAMES

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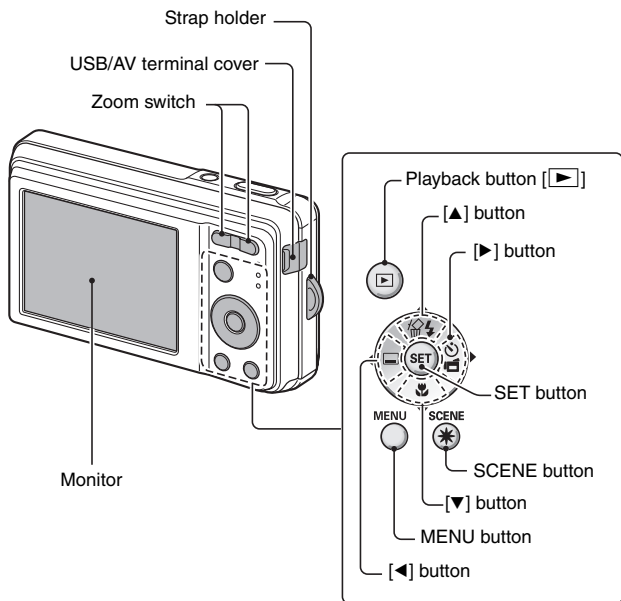
## Front



## Bottom



## Rear



---

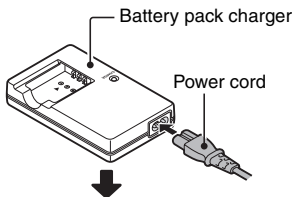
# CHARGING THE BATTERY PACK

---

Please charge the supplied battery pack before using it.

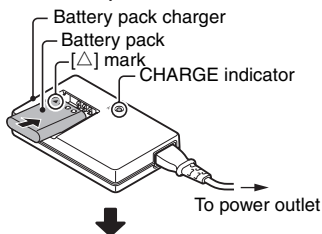
- 1** Connect the supplied power cord to the socket on the battery pack charger.

- Insert the connector straight and securely.



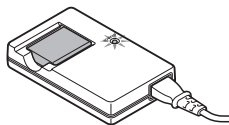
- 2** Insert the battery pack in the battery charger.

- Insert it in the direction indicated by the [△] mark on the battery pack.

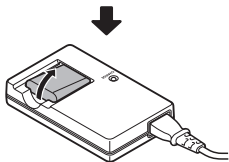


- 3** Plug the power plug into a power outlet (AC 100 V to 240 V).

- Charging begins.
- The CHARGE indicator is lit during charging.



- 4** When the CHARGE indicator turns off, unplug the power cord from the power outlet, and remove the battery pack from the charger.



---

## HINT

- Charging takes approximately 2 hr. 30 min.

## Charging the battery pack

Be sure to fully charge the supplied or separately sold battery pack before using it in your camera. For charging the battery pack, use the supplied charger.

Charge the battery pack if it is being used for the first time, and recharge it whenever the remaining charge is low (see "CHECKING THE REMAINING BATTERY CHARGE" on page 119).

### **Does the battery pack feel hot?**

- During charging, the charger and battery pack will be warm. This is normal and does not indicate a malfunction.

### **If there is interference to your TV or radio during charging...**

- Move the battery pack and charger further away from the TV or radio.

### **Ambient temperature during charging**

- It is recommended that the ambient temperature during charging be between about 10°C and 35°C (50°F and 95°F). Due to the characteristics of the battery pack, at temperatures below 0°C (32°F), it may not be possible to sufficiently charge it.
- When the battery pack temperature is high, the safety function may be activated and halt charging.

### **Charge a battery pack in the following cases**

- A battery pack which has not been used for a long time
- Newly purchased battery pack

### **FOR AMERICAN USERS:**

- Use a UL Listed, 1.8-3m (6-10ft), Type SPT-2 or NiSPT-2, AWG No.18 power supply cord, rated for 125V 7A, with a non-polarized NEMA 1-15P plug rated for 125V 15A.

---

## CHARGING THE BATTERY PACK

---

### About the CHARGE indicator

The CHARGE indicator shows the status of the battery pack and the charger. Please refer to the following table if the indicator flashes abnormally.

CHARGE indicator	
Not lit	Not connected properly <ul style="list-style-type: none"><li>• To recharge the battery pack, the power cord of the charger must be connected to a power outlet, and the plug at the other end inserted in the charger's power socket (page 17).</li><li>• The battery pack is not installed, or it is not installed correctly (page 17).</li></ul> Charging finished
Lit	Charging
Flashing	Problem with the battery pack or battery pack charger <ul style="list-style-type: none"><li>• Immediately remove the battery pack from the charger.</li><li>• Do not use an abnormal battery pack. (The usable life of the battery pack has probably expired.)</li></ul>

---

### CAUTION

**Do not charge the battery pack immediately after the camera has been in continuous use for a long time**

- The battery pack becomes hot when the camera is used continuously for a long time. If you attempt to charge the battery pack in this state, the safety function may be activated and it may not be possible to charge the battery pack. Wait until the battery pack has cooled down before attempting to charge it.

**Does the battery pack appear swollen?**

- The lithium-ion battery used in this camera may expand slightly when stored in a hot environment or repeatedly used, but this is not a safety hazard.

---

## **HINT**

### **About the internal backup battery**

- This camera's internal battery serves to maintain the date and time settings, as well as the shooting settings. The backup battery will be fully charged when the battery pack is kept in the camera continuously for about 2 days. In the fully charged state, the backup battery will maintain the camera settings for about 7 days.

### **When not using the camera for a long time, remove the battery pack**

- A small amount of power is still used even if the digital camera is turned off, and it is therefore recommended that the battery pack be removed from the camera if it is not going to be used for a long time. Note that when the battery pack is removed for a long period, the time and date settings may be cleared. Before using your camera again, be sure to confirm that the camera settings are correct.

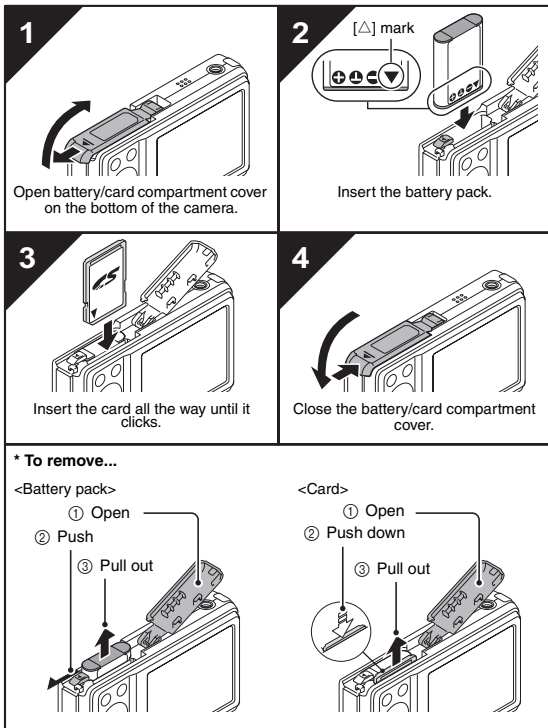
### **To prolong the life of the battery pack**

- Although the battery pack is an expendable item, you can maximize the life of the battery by heeding the following suggestions.
  - Do not leave the battery under the hot summer sun or exposed to other high-temperature environments.
  - Do not continually recharge the battery when it is already fully charged. After fully charging it once, for example, use it for a while to partially discharge it before charging it again.
  - When the battery is not to be used for a long time, if possible store the partially charged (not fully charged) battery in a cool environment.

# INSTALL THE BATTERY PACK AND CARD

## Installation

- The card can be used after it has been formatted with the camera (page 114).
- Make sure that the battery pack and card orientation are correct.





---

## CAUTION

### Be careful when removing the card

- Do not attempt to forcibly remove the card.
- Never remove the card when the camera is connected to a computer or printer, or when the self-timer indicator is flashing quickly. In doing so, you risk losing the data stored in the card.


### Keep your finger on the card until it is completely inserted or released

- If you remove your finger too soon, the card may spring out and become lost or hit someone in the eye.


---

## HINT

### Shooting without a card installed

- When a card is installed, images are recorded to and played back from the card. When no card is installed, images are recorded to and played back from the camera's internal memory. When the camera is turned on with no card installed, the internal memory icon  is shown on the monitor to let you know that the images you capture will be saved to the camera's internal memory.

## Warning concerning battery pack temperature

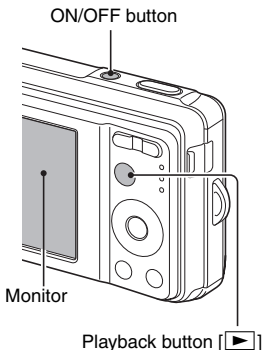
- If the battery pack in the camera becomes too hot, a blinking temperature warning icon  will appear on the monitor. If the blinking icon does appear, the camera should be turned off as soon as possible and the battery pack allowed to cool before the camera is turned on again.
- Note that the camera will turn off automatically if it continues to be used with the battery pack temperature elevated.

# TURNING THE CAMERA ON AND OFF

## Turning on the camera

### In the shooting mode

- 1 Press the **ON/OFF button**.
  - The camera turns on.
  - The camera turns on in the shooting mode that was active before it was last turned off.



### In the playback mode

- 1 Press the **playback button [▶]** for at least one second.
  - The Playback Screen appears on the monitor (pages 39 and 50).

## Turning off the camera

- 1 Press the **ON/OFF button**.
  - The camera turns off.

<If the camera was turned on by pressing the playback button [▶]>

  - When the playback button [▶] or ON/OFF button is pressed, the camera turns off.

## About the auto power off function


In order to preserve battery pack power when, for example, the camera has accidentally been left on, the camera is furnished with an “auto power off” function by which the camera automatically turns off after a certain period of inactivity (about 1 minute during shooting or about 3 minutes during playback [factory default settings]).

- If the auto power save function has operated to turn the camera off, press the ON/OFF button to turn it back on.
- You can change the setting for the time elapsed before the camera automatically turns off (page 110).
- When the camera is connected to a computer or printer using the dedicated USB interface cable, the auto power save function is disabled, and the camera turns off after about 12 hours.

---

### HINT

#### If the icon appears...

- When a picture is taken, the date and time it was captured is recorded with it. When the date and time cannot be recorded with the image because the date and time have not yet been set (page 25), the  icon appears. To have the date and time recorded with images, please make this setting before capturing images.

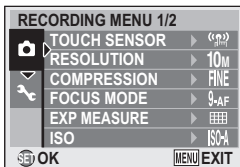
# DATE AND TIME SETTING

The camera will record the date and time an image is captured so that you can display them during playback. Therefore, before capturing images, make sure the correct date and time are set.

Example: To set the clock to 7:30 p.m. on December 24, 2008

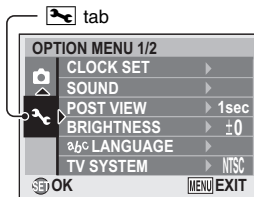
- 1** Press the **ON/OFF** button to turn the camera on, and press the **MENU** button.

- The Recording Menu appears (page 67).



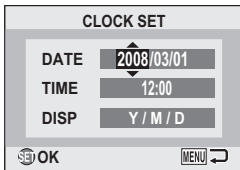
- 2** Press the **[▼]** button to select the  tab, and press the **[▶]** button.

- The Option Menu appears (page 103).



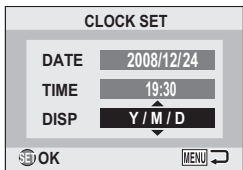
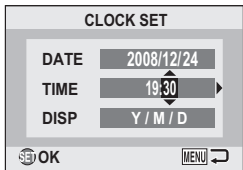
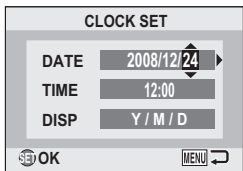
- 3** Press the **[▲]** or **[▼]** button to select **"CLOCK SET"**, and press the **SET** button or the **[▶]** button.

- The Clock Set Screen appears.
- The current date and time settings are shown.
- Follow the procedures below to enable or disable the date display during playback, to set the display format for the date, and to set the date and time.
- To return to the Option Menu, press the **MENU** button.



## 4 Set the date and time.

- ① Press the [▲] or [▼] button to change the year indication.
  - You can press the [▶] button to select the indication you wish to change.
  - Repeat these steps to select the month indication and day indication, and set the date to December 24, 2008.
- ② Press the [▶] button to select the time indication.
- ③ Press the [▲] or [▼] button to change the time setting.
- ④ Press the [▶] button to select the Y/M/D indication.
- ⑤ Press the [▲] or [▼] button to change the displayed date order.



- Press the [▼] button to change the displayed date order as follows:

→ Y / M / D → M / D / Y → D / M / Y → DISP OFF →

- Press the [▲] button to change it in the reverse order.

---

## DATE AND TIME SETTING

---

### **5 Press the SET button.**

- The date and time setting is completed, and you are returned to the Option Menu.
- The Option Menu is canceled when the MENU button is pressed.

---

### **HINT**

- Under normal conditions, while the battery pack is being replaced, an internal battery will maintain the date and time settings. However, there is a small chance the settings may be lost. (The backup will last for about 7 days.) It is recommended to check that the date and time settings are still correct after replacing the battery pack and before shooting or recording of any type (follow steps **1** to **3**).

### **To correct the date and time settings**

- In step **4**, select the indication that you want to change, and follow the procedure to change the indication.

---

# BEFORE TAKING PICTURES

---

## How to hold the camera

Hold the camera securely, keeping your elbows close to your body and making sure the camera is stable.

Correct hold



Incorrect hold



A finger is blocking the lens or flash.

Make sure that the lens and flash are not blocked by your fingers or the handstrap.

---

### HINT

- Images captured in the still image shooting mode can be rotated when they are played back (page 85).
- When the optical zoom is used or when the autofocus is operating, the image may appear to waver, but this is not a malfunction.

---

## BEFORE TAKING PICTURES

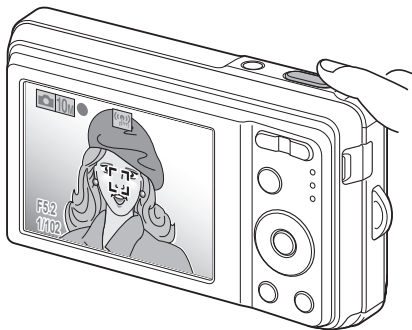
---

### About the touch sensor (touch focus)

With the touch sensor, the image is focused simply by a light finger-touch on the shutter button (focus lock). With the subject in focus, just gently press the shutter button to take the picture for a perfectly focused image.

At the same time, the touch sensor is temporarily deactivated whenever the Recording Menu (page 66) is displayed, thereby facilitating operation of these screens.

Furthermore, you can also deactivate the touch sensor so that the autofocus operates only when you press the shutter button halfway (page 69).





## Using the autofocus

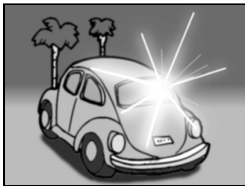
The autofocus will work in almost all situations; however, there are certain conditions that may cause the autofocus function to not work properly. If the autofocus function is not working properly, set the focus range to capture images (page 63).

### ■ Conditions that may cause incorrect focus

The following examples are some of the situations where the autofocus function may not work.

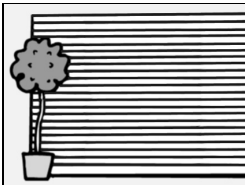
- **Subjects with low contrast, very bright subjects at the center of the image or dark subjects or locations**

Use the focus-lock function to lock the focus on an object with contrast at the same distance as the desired subject.



- **Subjects without vertical lines**

Use the focus-lock function to lock the focus while framing the subject vertically, then re-orient the camera to compose a horizontally framed image.



---

## BEFORE TAKING PICTURES

---

The following examples are some of the situations where the autofocus function may work, but not as desired.

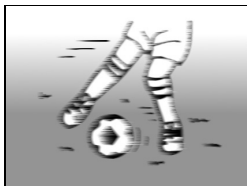
- **When both near and far objects are present**

Use the focus-lock function to lock the focus on an object at the same distance as the desired subject, then reposition the camera to compose the picture.



- **Fast-moving subjects**

Use the focus-lock function to lock the focus on an object at the same distance as the desired subject, then reposition the camera to compose the picture.

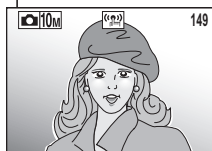
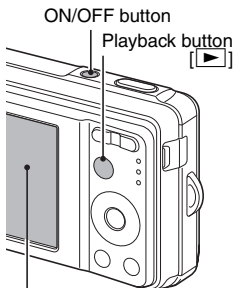


## Switching between the shooting mode and playback mode

Switch between shooting and playing.

- 1 Press the **ON/OFF** button to turn the camera on.

- 2 Press the **playback button** [▶].
  - Each time the playback button is pressed, the camera switches between the shooting mode and the playback mode.



<Shooting mode>



<Playback mode>

### HINT

#### To turn the camera on in the playback mode

- Press the playback button [▶] for at least 1 second, and the camera will turn on in the playback mode.

## BEFORE TAKING PICTURES

### How to switch the shooting mode

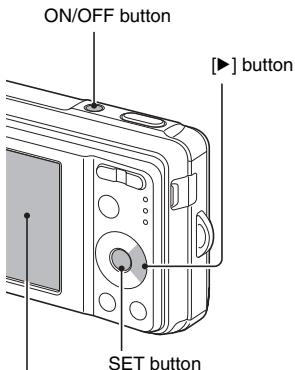
Your camera can capture single still photos (single-shot mode), record video clips (video clip recording mode), and also capture a series of still photos (sequential shots mode).

- 1 Press the ON/OFF button to turn the camera on.**

- 2 Press the [▶] button.**
  - The screen to set the shooting mode and the self-timer appears.

- 3 Press the [▶] button to select the shooting mode.**

- 4 Press the SET button.**
  - The selected shooting mode is set.
  - An icon in the upper left area of the monitor indicates the active shooting mode setting.



- : Single-shot mode
- : Sequential shots mode
- : Video clip recording mode

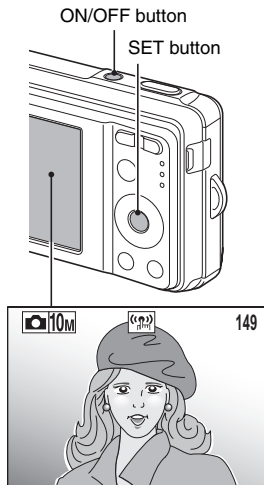
## Switching the display mode

In the shooting mode, you can select either the “settings display mode” which allows you to confirm the shooting settings on the monitor while you shoot, or the “normal display mode” in which the setting indications are turned off, providing a full view of the subject.

- 1 Press the ON/OFF button to turn the camera on.**

- 2 Press the SET button.**

- Each time the SET button is pressed, the camera switches between the settings display mode and the normal display mode.



**<Settings display mode>**



**<Normal display mode>**

---

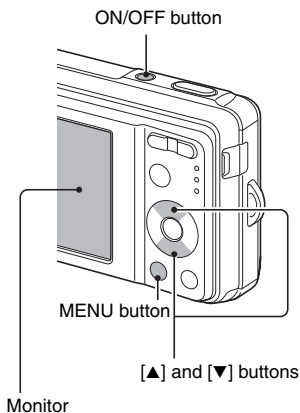
## BEFORE TAKING PICTURES

---

### Adjust the monitor brightness

The brightness of the monitor is adjustable. Adjust the brightness to the optimum readability in the ambient light.

- 1** Press the **ON/OFF** button to turn the camera on.
- 2** Press the **MENU** button for at least 1 second.
  - The monitor brightness menu appears.
- 3** Press the **[▲]** and **[▼]** buttons to adjust the brightness.
- 4** Press the **MENU** button.
  - The monitor brightness is set, and the monitor brightness menu is canceled.



---

#### HINT

- You can also adjust the monitor brightness by selecting “BRIGHTNESS” from the Option Menu (page 103).

## Hints for taking pictures

### Muting the camera sounds

- The operation sounds that are generated, for example, when the shutter button, MENU button or SET button is pressed, can be muted (page 105).

### Where is the image data saved?

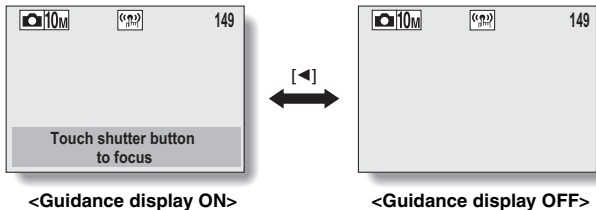
- All the image and sound data is recorded in the camera's internal memory or on the card installed in the camera.
- When a card is installed in the camera, the data is recorded on the card. If no card is installed, the data is recorded in the camera's internal memory.

### Taking pictures in backlight conditions...

- When taking pictures with the light coming from behind the subject, due to the characteristics of the CCD, light lines or ghost patterns (flare effect) may appear in the captured image. In this situation, it is recommended that you avoid taking pictures with the subject lit from behind.

### Switching the guidance display ON/OFF

- Press the [◀] button. Each time the [◀] button is pressed, the guidance display switches between ON and OFF.



# CAPTURING AND PLAYING BACK STILL IMAGES

There are two modes for capturing still images. In the single-shot mode, one image is captured each time the shutter button is pressed. In the sequential shots mode, when you press the shutter button, several successive images are captured. For more information about taking sequential shots, please see page 47.

## Shooting single shots

- 1 Set the camera to the single-shot mode (page 33).

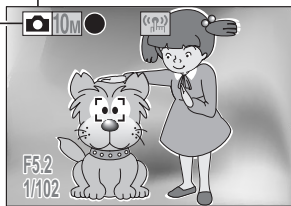
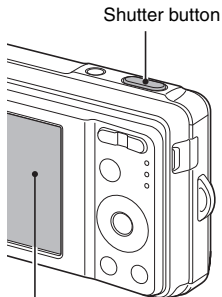
- 2 Rest your finger on the shutter button.

- If the touch sensor (page 69) has been set to ON, when the shutter button is touched, the autofocus operates and the image is focused (focus lock).



<If the touch sensor is set to OFF>

- Engage the autofocus by pressing the shutter button halfway.



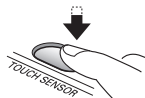
Single-shot icon

<Single-Shot Screen>



### 3 Gently press the shutter button.

- Press the shutter button gently, taking care not to move the camera.
- The image that was captured appears on the monitor as long as the shutter button is kept pressed (post view).



### 4 Release your finger from the shutter button.

- The captured image is recorded.

#### HINT

When the focus mode (page 74) is set to the 9-point focus mode [9-AF]...

- A target mark [ ] on the monitor shows the area the camera is focusing on.
- The camera automatically determines the correct focus by measuring from 9 different focus points within the shooting area. If the target mark is at a position that is different from the point you wish to focus on, you can refocus, for example, by changing the shooting angle.
- The large target mark appears when the camera focuses on a wide area in the center of the screen.

#### About the focus indicator

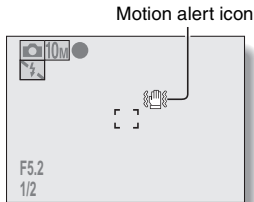
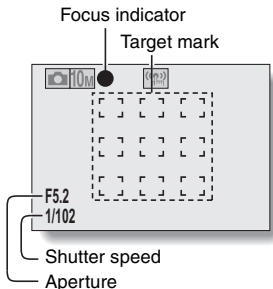
- A green focus indicator appears when the subject is successfully focused, or a red focus indicator when the camera was not able to focus the subject.

#### The shutter speed and aperture are displayed

- The shutter speed and aperture settings are also displayed on the monitor. You can use them as a reference when shooting.

#### If the motion alert icon appears...

- During still image shooting, if the shutter speed is slow and the possibility that the image may be blurred due to camera shake becomes high, the motion alert icon may appear on the monitor. In this case, use a tripod to stabilize the camera when shooting, or set the flash operation mode to automatic (page 59).
- When shooting with the fireworks [ ] scene function, the motion alert icon always appears, but this is normal.



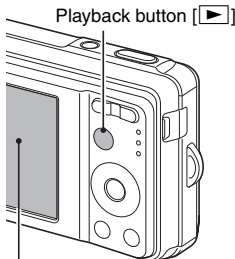
## CAPTURING AND PLAYING BACK STILL IMAGES

### Viewing still images

The steps for viewing both single shots and sequential shots are the same.

#### 5 Press the playback button [▶].

- If the playback button [▶] was pressed to turn the camera on, however, press the playback button [▶] for at least 1 second.
- The image most recently captured appears on the monitor.



#### 6 View other images.

- Press the [◀] or [▶] button to display the previous or next image.  
To display the previous image:  
Press [◀].  
To display the next image:  
Press [▶].
- To return to Shooting Screen, press the playback button [▶].



<If the camera was turned on by pressing the playback button [▶]>

- When the playback button [▶] or ON/OFF button is pressed, the camera turns off.

### When you are finished viewing images...

- Press the ON/OFF button to turn the camera off.


#### HINT


For still images with voice memo (page 55)...

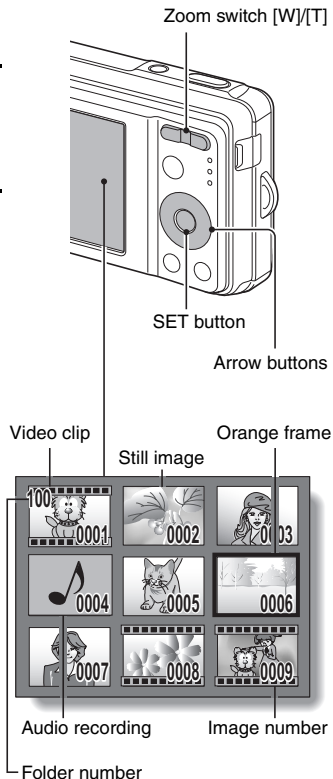
- When the shutter button is pressed, the voice memo is played back.

## 9-image display playback

- 1 Press the playback button  
[▶].

- 2 Press [W] ([) on the zoom switch.
  - The 9-image display appears.

- 3 Select the image to play back.
  - Press the arrow buttons to move the orange frame to the desired image, and press the SET button. Instead of pressing the SET button, you can press [T] ([) on the zoom switch to show the image full screen.



---

## CAPTURING AND PLAYING BACK STILL IMAGES


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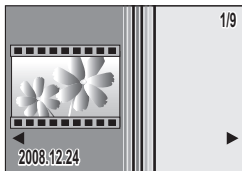
### Quick scroll playback

A convenient way to quick-search when there are many images.

---

**1** Access the 9-image display screen (page 40).

- 2** Press [W] ([  ]) on the zoom switch.
- The Quick Scroll Playback Screen appears.
  - Press the [◀] or [▶] button to display the previous or following image.
  - You can press the [▲] or [▼] button to move back or forward 32 files at a time.



- 3** Display the desired image, and press the SET button.
- The selected image is shown full-screen.

## Folder playback

A convenient way to search through multiple folders, or to search for an image that was recorded using Screen Capture (page 23 in the SANYO Software Pack INSTRUCTION MANUAL).

---

### 1 Access the Quick Scroll Playback Screen (page 41).



---

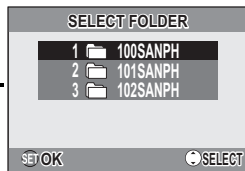
### 2 Press [W] ([ ]) on the zoom switch.

- The Select Folder Screen appears.

---

### 3 Select the desired folder, and press the SET button.

- The first image in the selected folder is displayed.
- At this time, if you press [W] ([  ]) on the zoom switch, the images in the selected folder are shown in the 9-image display. If [W] ([  ]) on the zoom switch is then pressed again, you are returned to the Quick Scroll Playback Screen.



---


## CAPTURING AND PLAYING BACK STILL IMAGES

---

### Magnifying (zooming in) the image


---

**1** Display the image that you want to magnify.


**2** Press [T] ([) on the zoom switch.

- Magnification is enabled.
- The image is magnified, and the central portion of image is displayed.
- Press the arrow buttons to view different parts of the magnified image.

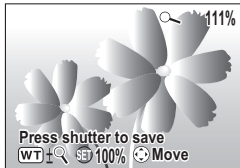
**To magnify:**

Magnification increases with each press of [T] ([) on the zoom switch.

**To go back:**

Magnification decreases with each press of [W] ([) on the zoom switch.

- Press the SET button to return to the normal (100%) view.



---

#### HINT

**The magnified portion of the image can be saved as a separate image**

- Press the shutter button. The magnified portion is saved as a new still image.

## Zoom jump playback

You can magnify a portion of a still image to check the accuracy of the focus.

- 1 **Display a still image to view using zoom jump playback.**

- 2 **Press the SET button.**
  - The image is magnified.
  - If the magnified view appears to be in focus, then the overall image will be in focus.

- 3 **Press the arrow buttons to move to the part you wish to magnify, and press [T] ([🔍]) on the zoom switch.**

- The displayed area is further magnified.

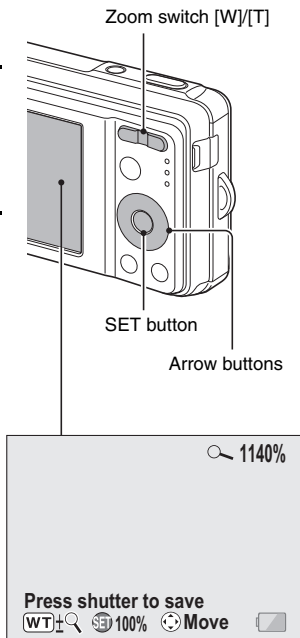
### To magnify further:

Magnification increases with each press of [T] ([🔍]) on the zoom switch.

### To go back:

Magnification decreases with each press of [W] ([📐]) on the zoom switch.

- Press the SET button again to return to the normal size (100%) screen.



---

## CAPTURING AND PLAYING BACK STILL IMAGES

---

### Deleting files

You can delete files that are stored on the card if you no longer need them. You can delete the files one at a time, or all at once.

- 
- 1** To delete files from the card, perform the delete procedure with the card installed in the camera. To delete files from the camera's internal memory, remove the card before performing the delete procedure.

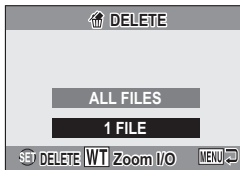
- 
- 2** Set the camera to the playback mode, and press the [▲] button.
- The Delete Screen appears.

**ALL FILES:**

Deletes all the files.

**1 FILE:**

Deletes one file at a time.



- 
- 3** Delete the files.
- <To delete all the files>

- ① Use the [◀] and [▶] buttons to view the images and check if it is OK to delete all the files.
- ② Press the [▲] or [▼] button to select "ALL FILES".
- ③ Press the SET button.
  - The Delete Confirmation Screen appears. To delete the files, select "YES", and press the SET button. When the file delete is completed, "No image" is shown.



### **<To delete one file>**

- ① Use the [◀] and [▶] buttons to display the file you wish to delete.
- ② Press the [▲] or [▼] button to select "1 FILE".
  - There is no confirmation screen when deleting single files. Before pressing the SET button in step ③, please make sure that the displayed image is one you wish to delete.
- ③ Press the SET button.
  - The currently displayed file is deleted.
  - To delete other files, repeat steps ① to ③.

---

### **CAUTION**

#### **About protected images**

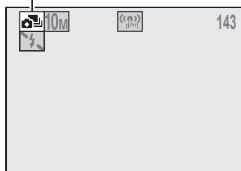
- Files that are protected from accidental delete cannot be deleted. To delete protected files, set the protect setting for the file to off (page 84), and then follow the file delete procedure.

# SHOOTING SEQUENTIAL SHOTS

When the shutter button is pressed, still images are captured in succession.

- 1 Set the camera to the sequential shots mode (page 33).**

Sequential shots icon



- 2 Press the shutter button to start shooting.**
  - Shooting sequential shots begins.

**<Estimated maximum number of sequential shots>**

Resolution	Max. no. of shots
10M	Approx. 7 shots
7.5M	Approx. 9 shots
6M	Approx. 12 shots
4M	Approx. 19 shots
2M	Approx. 40 shots
0.3M	Approx. 170 shots

- \* The quantities indicate the number of shots when the compression rate is set to **FINE**.
- \* The maximum number of sequential shots will differ depending on the subject.
- Note that if the shutter button is released during shooting, shooting stops immediately.

---

## HINT

### About the focus when shooting sequential shots

- When sequential shots are captured, the autofocus operates when the focus lock is activated, fixing the focus.

### Can the self-timer and/or flash be used?

- The self-timer and flash do not operate when shooting sequential shots.
- The following scene functions cannot be set.



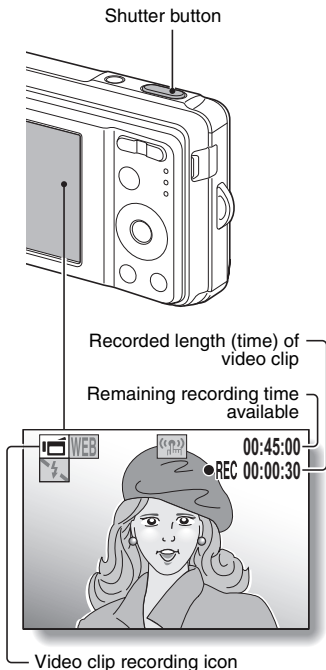
# VIDEO CLIP RECORDING AND PLAYBACK

## Recording a video clip

- 1 Set the camera to the video clip recording mode (page 33).**

- 2 Press the shutter button.**
  - Video clip recording begins. During recording, the length of the video clip and the remaining recording time available are shown on the monitor.
  - It is not necessary to continue pressing the shutter button while shooting.

- 3 End the recording.**
  - Press the shutter button again to stop recording and save the video clip.



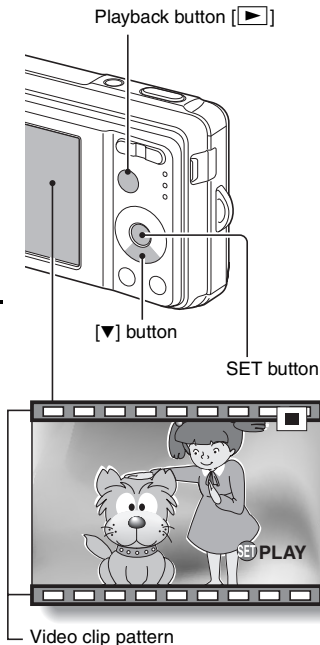
## Playing back the video clip

### 4 Press the playback button [▶].

- If the playback button [▶] was pressed to turn the camera on, however, press the playback button [▶] for at least 1 second.
- The video clip just recorded appears on the monitor.
- Video clips are indicated by a video clip pattern along the top and bottom of the screen.

### 5 Press the SET button.

- Video clip playback begins.
- To stop playback, press the [▼] button.



# VIDEO CLIP RECORDING AND PLAYBACK

## Outline of playback operation

To do this...		Do this
Stop playback		During playback, press the [▼] button.
Pause		During playback, press the SET button. During accelerated or slow playback, press the [▲] button.
To extract a still image		While playback is paused, press the shutter button.
To play back one image at a time (single-frame step)	Forward	While playback is paused, press the [▶] button.
	Reverse	While playback is paused, press the [◀] button.
Slow playback	Forward	While playback is paused, press and hold the [▶] button.
	Reverse	While playback is paused, press and hold the [◀] button.
To accelerate playback	Forward	During forward playback, press the [▶] button. * The playback speed changes each time the [▶] button is pressed, as follows: Normal playback → 2x → 5x → 10x → 15x Press the [◀] button to resume normal playback speed.
	Reverse	During forward playback, press the [◀] button. * The playback speed changes each time the [◀] button is pressed, as follows: 15x ← 10x ← 5x Press the [▶] button to resume normal playback speed.
Return to normal playback speed		Press the SET button.
Adjusting the volume		<b>Louder:</b> During playback, press [T] on the zoom switch. <b>Softer:</b> During playback, press [W] on the zoom switch.

## When you are finished viewing video clips...

- Press the ON/OFF button to turn the camera off.

---

### CAUTION

#### How to save one frame from a video clip as a still image

- ① Play back the video clip. Pause the playback at the point you wish to “snap” a photo.
- ② Press the shutter button.
  - The currently displayed frame is saved as a still image.

#### The data for a video clip is very large

- Therefore, be aware that if the video clip is uploaded to a computer to be played back, the computer may not be able to play back the video fast enough, making it appear jerky. (The video will always be displayed properly on the camera monitor.)

#### If video clip recording stops even when there is card memory remaining...

- Depending on the card you are using, recording may stop even if there is remaining memory in the card.
- For video clip recording, it is recommended that a high-speed memory card be used.

#### If no audio is heard...

The audio is not played back when the video clip is played back in the frame-by-frame, slow playback, fast playback or reverse playback mode.

#### During video clip playback, the sound of a motor is audible...

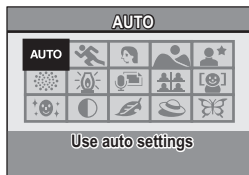
- During recording, the sound of the optical zoom movement or autofocus movement was recorded. This is not a malfunction.

# USING THE SCENE FUNCTION

You can select from a variety of preset settings (aperture, shutter speed, etc.) for specific shooting conditions.

- 1 Set the camera to the shooting mode (page 32), and press the **SCENE** button.

- The screen to select a scene function appears.














- 2 Use the arrow buttons to select the desired setting.

<Example: In the single-shot mode>

<Features of each scene function>

Scene function	Features	Shooting mode setting		
Auto	The camera makes the optimum settings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sports	Capture a split-second image of a fast-moving subject.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Portrait	Enhance the three-dimensional feel of the subject by blurring the background. (With face chaser function)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Landscape	For beautiful shots of distant scenery.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Night view portrait	Photograph the subject while keeping the background night scenery.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Fireworks	For capturing fireworks at night.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Lamp	Photograph in low-light conditions.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>



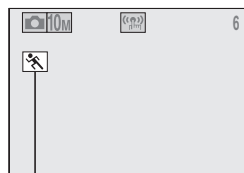
Scene function	Features	Shooting mode setting		
				
 Still image with audio	Shoot a still image and add a voice memo.	○	×	×
 Best shot	Four successive still images are captured as the exposure changes.	○	×	×
 Face chaser	The subject's face is kept in focus and the exposure adjusted as the image is captured.	○	○*	○*
 Cosmetic	Enhance skin tones during close-up shots.	○	○	○
 Monochrome	Create black-and-white photos.	○	○	○
 Sepia	Create sepia-tone photos.	○	○	○
 Contrast	Accentuates the light and dark areas in the image.	○	○	○
 Vivid	Accentuates the colors in the image.	○	○	○


○: Available    ×: Not available

\*: Disabled during recording

### 3 Press the SET button.

- This completes the scene select setting.
- The display returns to the Shooting Screen.
- The scene function setting is shown on the monitor.




Scene function setting  
( is not displayed)

---

## USING THE SCENE FUNCTION

---

### Capture a still image with a voice memo

With the still-image-plus-audio  scene function, you can add an audio track (about 10 seconds maximum) to a captured still image. This audio track is called a “voice memo”.

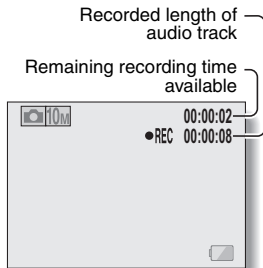
---

**1** On the screen to select a scene function (page 53), select , and press the SET button.


---

**2** Press the shutter button to take the picture, then speak into the microphone.

- During recording, be careful not to obstruct the microphone with your fingers, for example.
- Audio recording begins. During recording, the length of the audio track and the remaining recording time available are shown on the monitor.
- The maximum recording time for a voice memo is about 10 seconds.
- To end the recording before 10 seconds has elapsed, press the shutter button.



## How to use the best shot feature

- 1 Set the camera to the single-shot mode; on the screen to select a scene function (page 53), select ; and press the SET button.

- 2 Press the shutter button.
  - While the settings change, four still images are shot in sequence.
  - After the images are captured, the four still images are displayed on the monitor.

<To save all four images>

  - With all four images showing on the monitor, press the MENU button.



- 3 Use the arrow buttons to move the orange frame to the image you wish to save.
  - For a full-size view of the selected image, press the SET button.
  - With the full-size view active, you can use the [◀] and [▶] buttons to view the previous or next image.
  - To return to the screen in step 2, press the MENU button.

- 4 With the full-size view of the image you wish to save, select "YES", and press the SET button.
  - The image currently displayed is saved, and the other images are deleted.



---

## USING THE SCENE FUNCTION

---

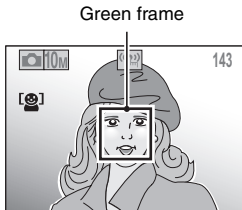
### How to use the face chaser feature

To attain the best possible face shots, the camera automatically focuses on the face and adjusts the exposure.

- 
- 1** On the screen to select a scene function (page 53), select , and press the SET button.

- 
- 2** Aim the camera lens at the subject.

- The camera searches for the subject's face. When it detects the face, a green frame appears.
- Do not touch the shutter button while the camera is searching. The camera cannot search when the autofocus is activated.



- 
- 3** The focus locks on the subject (page 37).

- The camera focuses on the subject and the exposure is adjusted.
- When the face is in focus, the green frame changes to orange.

- 
- 4** Press the shutter button.

- The image is captured.

---

#### CAUTION

- The digital zoom is disabled.
- The face chaser function does not work when zooming in or out.
- The face chaser function may not work when the subject's face in the monitor is relatively small or appears dark.

# USING THE ZOOM

Your camera has two zoom functions: optical zoom and digital zoom.

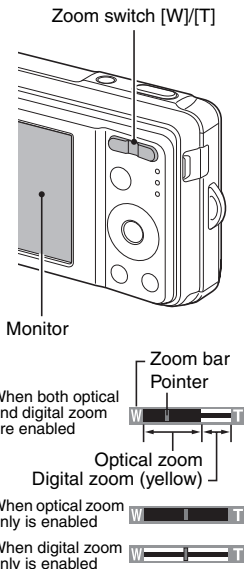
- 1 Set the camera to the shooting mode (page 32), and point the camera lens at the subject.**

- 2 Press the zoom switch to compose the desired image.**

[T]: Zoom in on the subject.

[W]: Zoom out.

- When the zoom switch is pressed, the zoom bar appears on the monitor.
- When the optical zoom factor is at maximum, zooming stops temporarily. When [T] on the zoom switch is pressed again, the mode changes to the digital zoom mode and zooming continues.



- 3 Take the picture.**

## HINT

### Can't access the digital zoom?

- The digital zoom cannot be used when the face chaser (📷) or portrait mode (👤) scene function is active, or the focus mode is set to AF seeker (AF🔍).

### Can't access the optical zoom?

- When the focus range is set to pan (PF) or during video clip recording, the optical zoom cannot be used.

# FLASH SETTING

The flash is used not only for taking pictures where there is insufficient light, but also when the subject is in shade or in backlight conditions. Your camera's flash has four modes of operation (auto mode, forced flash mode, flash off mode and red-eye reduction mode). Select the flash mode that is appropriate for the surrounding conditions. The flash can be enabled only when taking single-shot still images.

## 1 Set the camera to the single-shot mode (page 33), and press the **[▲] (⚡)** button.

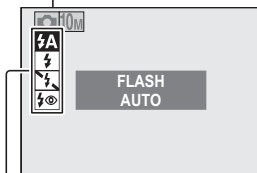
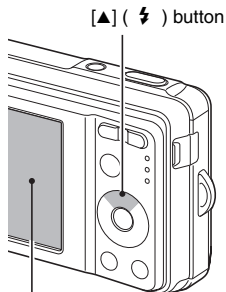
- The flash menu appears.

**[⚡A]**: The camera will detect the subject brightness and use the flash only when required. In a backlight situation, if only the center of the image is very dark, the flash will operate to compensate (auto).

**[⚡]**: The flash will operate with every image captured regardless of the conditions. Use this setting under backlight conditions, when the subject is in shade, under fluorescent lighting conditions, etc. (forced flash).

**[⚡/]**: The flash will not operate even in dark situations. Use this setting when capturing an image in a location where flash photography is prohibited, or when shooting a night landscape scene (flash off).

**[⚡/⦿]**: The digital camera will detect the subject brightness and use the flash only when required. At this time the flash will operate in a manner that reduces the red reflection ("red-eye") in the subject's eyes (red-eye reduction).



Flash menu

- 
- 2** Press the [▲] or [▼] button to select the desired flash mode, and press the SET button.
- 


**3** Press the shutter button.

- The picture is snapped and the flash operates according to the selected mode.



---

**HINT**

**When auto is selected...**

- The  icon indicating the flash setting is not shown on the Shooting Screen.

**When auto or red-eye reduction is selected...**

- When the subject is in focus, if the camera determines that the flash is necessary, a  or  icon appearing on the monitor indicates that the flash will operate.

---


# SELF-TIMER


---

Self-timer photography is available in the single-shot mode.

- 1 Set the camera to the single-shot mode (page 33), and press the [▶] (⏻) button.**

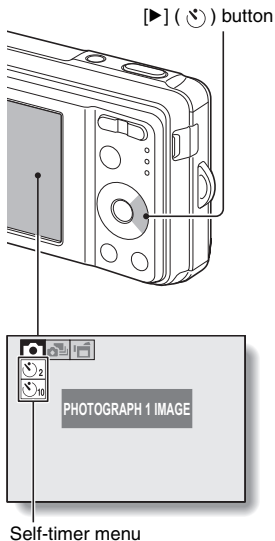
- The self-timer menu appears.

: The image is captured about 2 seconds after the shutter button is pressed.

: The image is captured about 10 seconds after the shutter button is pressed.

- 2 Use the [▲] and [▼] buttons to select the desired self-timer setting, and press the SET button.**

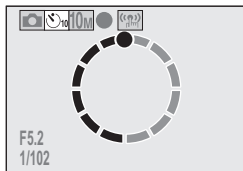
- The self-timer is set, and you are returned to the Shooting Screen.






## HINT

- The countdown time until shutter release is shown graphically on the monitor.



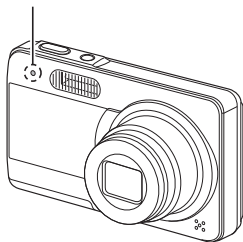
## To pause or cancel the self-timer function...

- If the shutter button is pressed again before the shutter is released, the self-timer countdown temporarily stops. Press the shutter button one more time to restart the self-timer.
- To cancel self-timer photography, set the self-timer setting to off .
- After the self-timer picture is snapped, the self-timer is automatically reset to off.

## When 10 is selected...

- When the shutter button is pressed, the self-timer indicator flashes for approximately 10 seconds, after which shooting begins.
- About 3 seconds before shooting, the self-timer indicator flashes faster.

Self-timer indicator



# FOCUS RANGE

- 1** Set the camera to the shooting mode (page 32), and press the [▼] ( ) button.

- The focus range menu appears.

**[PF]**: The focus operates within the ranges shown below (pan).

**<Still image shooting>**

- At maximum aperture setting:  
2.2 m (7.22 ft.) to ∞
- At minimum aperture setting:  
1.3 m (4.27 ft.) to ∞

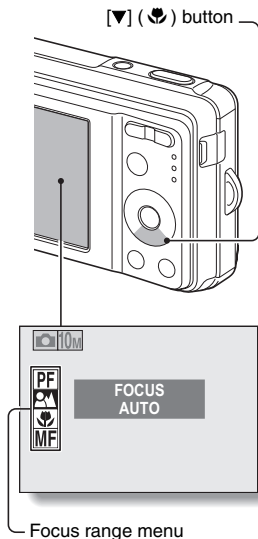
**<Video clip recording>**

- Wide end:  
At maximum aperture setting:  
45 cm (17.72 in.) to ∞  
At minimum aperture setting:  
28 cm (11.02 in.) to ∞
- Tele end:  
At maximum aperture setting:  
4.8 m (15.75 ft.) to ∞  
At minimum aperture setting:  
4.2 m (13.78 ft.) to ∞

**[ ]**: The camera automatically focuses on the subject within a range of 40 cm (15.75 in.) (Wide end) or 90 cm (2.95 ft.) (Tele end) to infinity (auto).

**[ ]**: You can focus on a subject within the following ranges (macro):  
Wide end: 10 cm (3.94 in.) to 50 cm (19.69 in.)  
Tele end: 60 cm (23.62 in.) to 1 m (3.28 ft.)

**[MF]**: The focus can be manually set to any distance from 10 cm (3.94 in.) to 10 m (32.81 ft.), as well as to infinity (manual).




---

## 2 Press the [▲] or [▼] button to select the desired focus range, and press the SET button.

- The specified focus range is set, and the camera returns to the Shooting Screen.

---

### HINT

- In the single-shot mode and sequential shots mode, when the focus range is set to macro , the zoom is automatically set to one step from the wide end. When the focus range is set to pan **PF**, the zoom is automatically set to the Wide end.

---

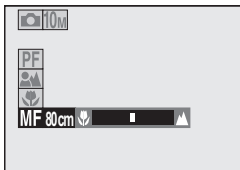
## FOCUS RANGE

---

### How to use the manual focus

- 1** Select manual **MF** from the focus range menu, and press the **SET** button.

- The focus distance adjustment bar appears.



- 2** Press the [**◀**] or [**▶**] button to adjust the focus distance, and press the **SET** button.

- The focus distance is set, and you are returned to the Shooting Screen.

---

#### HINT

##### About the focus range

- The focus distance indication shows the distance between the lens surface and the subject.
- In some cases there may be a slight variance between the distance (numerical figure) you set in the manual focus mode and the actual distance. Use the monitor to confirm the focus and compose the photo.

##### About zoom movement when using the manual focus

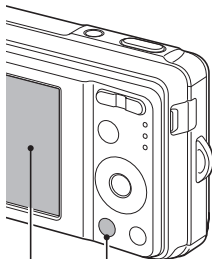
- If the focus distance is set to 50 cm (19.69 in.) or less, the zoom changes to the largest setting that is suitable for that focus distance.
- When the focus distance is set to 50 cm (19.69 in.) or less, the zoom will function only within the range at which the image is focused.

# ACCESSING THE RECORDING MENU

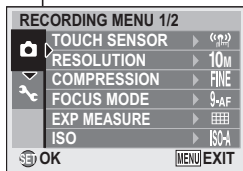
Detailed shooting settings are accessed from the Recording Menu.

- 1 Set the camera to a shooting mode (page 33).**

- 2 Press the MENU button.**
  - The Recording Menu corresponding to the shooting mode set in step 1 appears.
  - The Recording Menu can be canceled by pressing the MENU button.

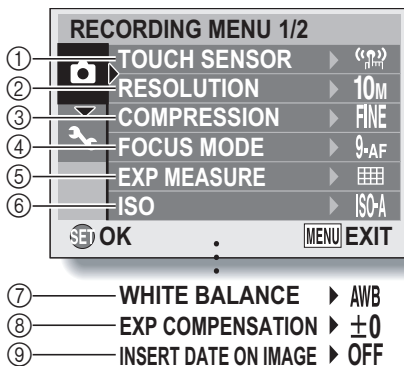


MENU button




## ACCESSING THE RECORDING MENU


### Overview of the Recording Menu



- ⑦ through ⑨ are displayed when you press the [▲] or [▼] button to scroll.


① **Touch sensor menu (page 69)**


: Set the shutter button touch sensor to ON.


: Set the shutter button touch sensor to OFF.


② **Resolution menu/video size menu (page 70)**


**<Single-shot/sequential shots mode>**

: Shoot at 3648 × 2736 pixels (single-shot mode only)

: Shoot at 3648 × 2056 pixels (16:9 aspect ratio)

: Shoot at 2816 × 2112 pixels


: Shoot at 2288 × 1712 pixels


: Shoot at 1600 × 1200 pixels

: Shoot at 640 × 480 pixels


**<Video clip recording mode>**


: Shoot at 640 × 480 pixels

: Shoot at 320 × 240 pixels


: Make an audio recording (page 71)


③ **Compression rate menu (single-shot/sequential shots mode only) (page 73)**


: For shooting at low compression

: For shooting at normal (moderate) compression


④ **Focus mode menu (page 74)**


: 9-point focus mode

: Spot focus mode

: The focus follows the focus-locked subject.


⑤ **Light-measuring mode menu (page 76)**


: Multi-section light-measuring


: Center-weighted light-measuring

: Spot light-measuring

⑥ **ISO sensitivity menu (page 77)**

: Sets the ISO sensitivity automatically (ISO50 to 200).

: ISO50

: ISO100

: ISO200


: ISO400


: ISO800


: ISO1600

: ISO2500


⑦ **White balance menu (page 79)**


: The camera will determine the setting automatically.

: For photography in fair weather (sunny) conditions

: In overcast conditions

: Under fluorescent lighting

: Under incandescent lighting

: For setting the most accurate white balance

⑧ **Exposure correction menu (page 80)**

- Change the brightness of the image.

⑨ **Date imprint menu (page 81)**

- Imprint the capture date on still images.

- When you specify multiple functions that cannot be simultaneously enabled, the function which was last set becomes the active setting, and the other settings accordingly change automatically.

---

# TOUCH SENSOR (TOUCH FOCUS) SETTING

---

The touch sensor function, by which the autofocus is activated by a finger-touch on the shutter button, can be set to ON or OFF. When the touch sensor function is set to OFF, the autofocus is activated when you press the shutter button halfway; then gently press the shutter button to snap the picture.

---

## 1 Display the Recording Menu (page 66).

---

## 2 Select “TOUCH SENSOR” and press the SET button.

- The sensor menu appears.



: The touch sensor function is set to ON.



: The touch sensor function is set to OFF.

---

## 3 Select the desired icon, and press the SET button.

- The selected touch sensor function is set.
- 

### CAUTION

- When the camera is attached to a tripod, the touch sensor sensibility may be diminished. This happens because the touch sensor works by detecting changes in the capacitance when the camera is touched with bare hands. The touch sensor sensibility will also be diminished, for example, if you hold the camera with gloved hands.
- When the camera is used near inverter-type fluorescent lights, the touch sensor sensitivity may be diminished.



---

# RESOLUTION/VIDEO SIZE SETTING

---

By setting the image resolution (pixels) to a higher setting, image detail is enhanced for a smoother, finer picture. However, the file size also becomes large and uses more memory. Select the resolution setting that suits your purpose.

---

## 1 Display the Recording Menu (page 66).

---

## 2 In the single-shot or sequential shots mode select “RESOLUTION”, or in the video clip recording mode select “CLIP SIZE”, and press the SET button.

- The resolution menu or video size menu appears.

### <Single-shot/sequential shots mode>

**10M**: Shoot image at 3648 × 2736 pixels (Single-shot mode only)

**7.5M**: Shoot image at 3648 × 2056 pixels (16:9 aspect ratio)

**6M**: Shoot image at 2816 × 2112 pixels

**4M**: Shoot image at 2288 × 1712 pixels

**2M**: Shoot image at 1600 × 1200 pixels

**0.3M**: Shoot image at 640 × 480 pixels

### <Video clip recording mode>

**TV**: Shoot at 640 × 480 pixels

**WEB**: Shoot at 320 × 240 pixels

: Make an audio recording (page 71)

---

## 3 Select the desired icon, and press the SET button.

- The selected resolution setting or video size setting is set.

---


## RESOLUTION/VIDEO SIZE SETTING

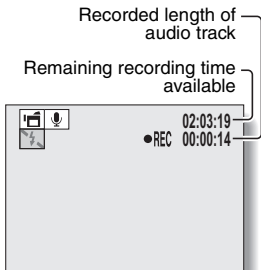
---

### Record and play back an audio file

In the video clip recording mode, your camera can make audio recordings. The audio recordings are monaural.

#### ■ Record an audio file

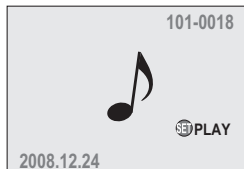
- 1 Display the Recording Menu for the video clip recording mode (page 66).
- 2 Select the audio recording icon  from the video size menu, and press the SET button.
- 3 Press the MENU button.
  - The recording mode is enabled.
- 4 Press the shutter button.
  - Audio recording begins. During recording, the length of the audio track and the remaining recording time available are shown on the monitor.
  - It is not necessary to continue pressing the shutter button while recording.
  - Take care not to cover the microphone with your fingers.



- 5 End the recording.
  - Press the shutter button again to stop recording.

## ■ Playing back audio recordings

- 1 **Display the desired audio data.**
  - A musical note graphic appears on the screen.



- 2 **Play back the recording.**

To do this...	Do this
Forward playback	Press the SET button.
Stop playback	During playback, press the [▼] button.
Pause	During playback, press the SET button. During fast forward or fast reverse, press the [▲] button.
Fast forward	During forward playback, press the [▶] button. * The speed changes each time the [▶] button is pressed, as follows: Normal playback → 2× → 5× → 10× → 15× Press the [◀] button to resume normal speed.
Fast reverse	During forward playback, press the [◀] button. * The speed changes each time the [◀] button is pressed, as follows: 15× ← 10× ← 5× Press the [▶] button to resume normal speed.
Return to normal playback speed	Press the SET button.
Adjusting the volume	<b>Louder:</b> During playback, press [T] on the zoom switch. <b>Softer:</b> During playback, press [W] on the zoom switch.

### HINT

- During 5× or faster accelerated playback, the audio is not played back.

---

# COMPRESSION RATE SETTING

---

Set the data compression rate when shooting images. Even if the same resolution is used, you can change the compression setting to decrease the image data size so that you can capture more images, or increase the image data size for no loss in image quality.

---

## 1 Display the Recording Menu (page 66).

---

## 2 Select the compression rate menu, and press the SET button.

- The menu to select the desired compression rate is shown.
    - FINE**: Stores the data at a low compression rate. The file size is large, but the image quality is optimum.
    - NORM**: Stores the data at a normal compression rate. The file size is smaller, but the image quality is reduced.
- 

## 3 Select the desired compression rate from the compression menu, and press the SET button.

- This completes the compression rate setting.


---

# FOCUS AREA SETTING

---

You can choose from different types of autofocus:

## **9-point range finder focus:**

The correct focus is determined from 9 different focus points within the shooting area visible on the monitor. When the image is focused, a target mark  appears.

## **Spot focus:**

The camera focuses on the subject in the center of the monitor.

## **AF seeker:**

Once the focus is locked on a subject (page 37), it follows the subject. The focus point automatically changes to remain continuously focused on a moving subject.


---


## **1 Display the Recording Menu (page 66).**



## **2 Select “FOCUS MODE” and press the SET button.**

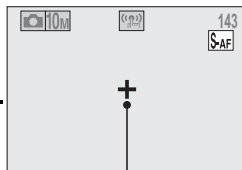
- The focus mode menu appears.

: 9-point range finder focus is selected (page 38).

: Spot focus is selected.

: AF seeker is selected.

- When the  or  setting is selected, the focus mark appears in the center of the monitor.



## **3 Select the desired icon, and press the SET button.**

- The focus area is set.

Focus mark

---

## FOCUS AREA SETTING


---

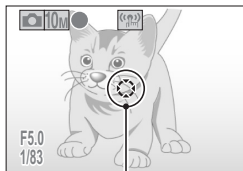
### HINT

#### When spot focus is selected...

- The focus mark + appears in the center of the monitor.

#### When AF seeker is selected...

- The focus mark + appears in the center of the monitor.
- When the focus-lock is activated, the seeker mark appears on the focused subject.
- During focus-lock, even if the focused subject moves, the seeker mark automatically follows the subject.
- If the camera loses the focus-lock on the subject, the seeker mark disappears.
- In dark environments, the seeker mark may follow the subject more slowly.
- When the  setting is selected, the digital zoom is not available.



Seeker mark

---

# LIGHT-MEASURING MODE SETTING

---

You can select from 3 types of light-measuring modes.

**Multi-section light-measuring:**

The exposure is adjusted after sampling from multiple areas of the entire shooting screen.

**Center-weighted light-measuring:**

The exposure is adjusted after light is measured from the entire image, but with emphasis on the center area.

**Spot light-measuring:**

You can compose the picture and capture the image after first measuring the light only at the center spot of the monitor.

---

## 1 Display the Recording Menu (page 66).

---

## 2 Select “EXP MEASURE”, and press the SET button.

- The light-measuring mode menu appears.



: Multi-section light-measuring



: Center-weighted light-measuring



: Spot light-measuring

---

## 3 Select the desired icon, and press the SET button.

- This completes the light-measuring mode setting.

---

# ISO SENSITIVITY

---

With the initial settings, the ISO sensitivity is automatically set according to the brightness of the subject. However, the ISO sensitivity can be set to a fixed setting.

---

## 1 Display the Recording Menu (page 66).

---

## 2 Select “ISO” and press the SET button.

- The ISO sensitivity menu appears.

**ISO-A**: Sets the ISO sensitivity automatically (ISO50 to 400 [video clip recording mode: ISO450 to 3600]).

**50**: Sets the sensitivity to ISO50 (video clip recording mode: ISO450).

**100**: Sets the sensitivity to ISO100 (video clip recording mode: ISO900).

**200**: Sets the sensitivity to ISO200 (video clip recording mode: ISO1800).

**400**: Sets the sensitivity to ISO400 (video clip recording mode: ISO3600).

**800**: Sets the sensitivity to ISO800 (video clip recording mode: ISO7200).

**1600**: Sets the sensitivity to ISO1600 (video clip recording mode: ISO7200).

**2500**: Sets the sensitivity to ISO2500 (video clip recording mode: ISO7200).

---

## 3 Select the desired icon, and press the SET button.

- The ISO sensitivity is set.



---

## HINT

- By setting a higher ISO sensitivity, you can set higher shutter speeds and capture images in darker locations, but noise in the captured images may increase.

---

## CAUTION

### Does the image appear to flicker when recording a video clip?

- If recording a video clip under fluorescent lights with the ISO sensitivity set to **400** or higher, a noticeable flicker may appear in the image.

---

# WHITE BALANCE

---

This camera automatically adjusts the white balance under most lighting conditions. However, if you want to specify the lighting conditions or change the overall tone of the image, the white balance can be manually set.


---

## 1 Display the Recording Menu (page 66).

---


## 2 Select “WHITE BALANCE” and press the SET button.


- The white balance menu appears.


: The camera will make the white balance adjustment automatically based on the natural and artificial light conditions. This is the setting used in the auto mode.


: For shooting outside on a sunny day.

: For shooting outside on a cloudy day.

: For shooting inside under fluorescent lighting.

: For shooting inside under incandescent lighting.

: For more accurate adjustment or when the light source cannot be specified (one-push).

Select the  icon from the white balance menu, fill the entire screen with a plain white paper, and press the SET button to set the white balance. To use any of the other white balance settings, proceed to step 3.

---

## 3 Select the desired icon, and press the MENU button.

- This completes the white balance setting.

---

### HINT

#### To cancel the white balance setting

- Perform steps 1 and 2, select , and then press the MENU button.

---

# EXPOSURE CORRECTION

---

When capturing images, you can make the image lighter or darker.

- 
- 1** Point the camera lens at the subject, and display the Recording Menu (page 66).
  - 2** Select “EXP COMPENSATION” and press the SET button.
    - The screen to adjust the exposure appears.
  - 3** Use the [▲] and [▼] buttons to select the desired exposure numerical value, and press the SET button.
    - The specified exposure is set, and you are returned to the Recording Menu.
- 

---

## HINT

- The exposure correction setting returns to  $\pm 0$  after the camera is turned off.

---

# DATE IMPRINT

---

You can choose to have the date the image was captured imprinted on the image.

---

**1** Display the Recording Menu (page 66).

---

**2** Select “INSERT DATE ON IMAGE”, and press the SET button.

- The date imprint menu appears.

**ON:** The date of the capture is imprinted on the image.

**OFF:** The date of the capture is not imprinted on the image.

---

**3** Press the [▲] or [▼] button to select the desired setting, and press the SET button.

- The date imprint mode is set, and you are returned to the Recording Menu.
- 

## HINT

### About the capture date and date imprinting

- When an image is edited, the date of the image file changes to the date and time the image was edited. However, the imprinted capture date remains unchanged.

### Is the sequential shots speed slow?

- When the date imprint mode is set to “ON”, the sequential shots speed may become slower.

### If the imprinted date is shown as [- - - - . - - -] ...

- The date and time settings have not yet been completed. Set the camera to the correct date and time (page 25).

# DISPLAYING THE PLAYBACK MENU

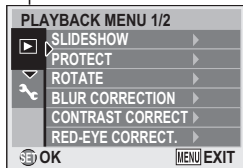
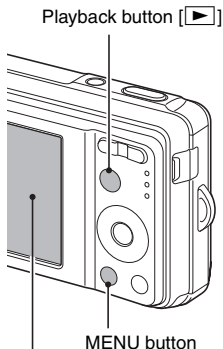
The Playback Menu is used to adjust your camera's playback settings.

## 1 Press the playback button [▶].

- The display changes to the Playback Screen.

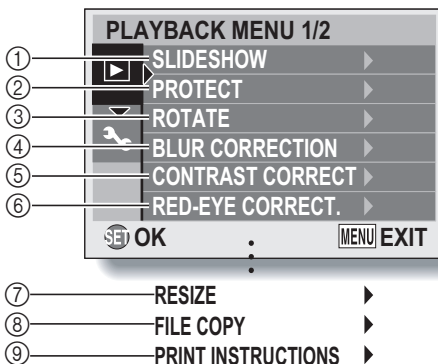
## 2 Press the MENU button.

- The Playback Menu appears.
- The Playback Menu is canceled when the MENU button is pressed.



## DISPLAYING THE PLAYBACK MENU

### Overview of the Playback Menu



- ① **[Slideshow] (page 100)**
  - Play back the images in a slideshow format.
- ② **[Protect] (page 84)**
  - Protect data from accidental erasure (write protect).
- ③ **[Rotate image] (page 85)**
  - Rotate still images.
- ④ **[Blur correction] (page 87)**
  - Correct the effects of camera shake in still images.
- ⑤ **[Contrast correction] (page 89)**
  - Add contrast (light and dark) to the image to make it clearer.
- ⑥ **[Red-eye correction] (page 91)**
  - Repair the red-eye effect to make eyes look more natural.
- ⑦ **[Resize] (page 86)**
  - Reduce the resolution of a still image.
- ⑧ **[File Copy] (page 93)**
  - Copy files from the card to the internal memory, or vice versa.
- ⑨ **[Print instructions] (page 95)**
  - Specify the print settings.

• ⑦ through ⑨ are displayed when you press the [▲] or [▼] button to scroll.

---

# IMAGE PROTECT

---

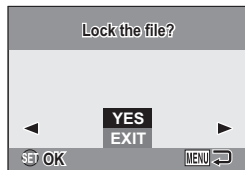
Prevent accidental erasure of data.

---


- 1** Display the data that you want to protect from accidental erasure, and display the Playback Menu (page 82).

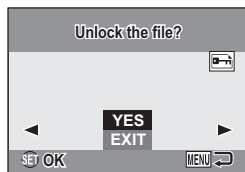
- 2** Select “PROTECT” and press the SET button.

- The screen to set the protect setting appears.



- 3** Select “YES” and press the SET button.

- The protect mode is set for the data.
- The protect mark  indicates that the data is locked.



---

## CAUTION

- Even if the protect mode is set for certain data files, they will be deleted if the card is reformatted (page 114).

---

## HINT

To select a different image in steps 2 and 3...

- Press the [◀] or [▶] button.

To cancel the protect mode for an image...

- Display the desired data and repeat steps 1 to 3.

---

# ROTATE IMAGE

---

Captured still images can be rotated to the correct orientation for viewing.

---

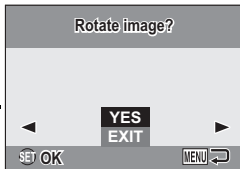
- 1** Display the image you wish to rotate, and display the Playback Menu (page 82).

- 2** Select “ROTATE” and press the SET button.

- The screen to rotate the image appears.

- 3** Select “YES” and press the SET button.

- Each time the SET button is pressed, the image is rotated another 90 degrees.



---

## HINT

- On the 9-image display playback, rotated images are shown in their original orientation.
- An image for which the protect (locked) mode has been set cannot be rotated.



---

# CHANGING IMAGE SIZE (RESIZE)

---

The size of a still image that has already been captured at a resolution of **2M** or higher can be changed to 1600 × 1200 pixels or 640 × 480 pixels. The resized image is saved as a separate image.

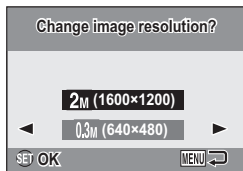
---

**1** Display the still image whose size you want to change, and display the Playback Menu (page 82).

---

**2** Select “RESIZE” and press the SET button.

- The screen to change the still image resolution appears.



---

**3** Select the new image size.

**2M (1600 × 1200):** The saved image will be 1600 × 1200 pixels.

**0.3M (640 × 480):** The saved image will be 640 × 480 pixels.

---

**4** Press the SET button.

- Resizing begins.

---

## HINT

### Why can't the image be resized?

- An image can be resized only to a smaller (or the same) size, not to a larger size.
- An image that was captured at a resolution of **7.5M** cannot be resized.

---

# BLUR CORRECTION

---

Correct the effects of camera movement (camera shake) to produce a sharper image.

---

- 1** Display the image to be modified, and display the Playback Menu (page 82).
- 

- 2** Select “BLUR CORRECTION”, and press the SET button.

- The Blur Correction Screen appears.

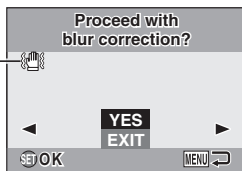
**YES:**

Proceed with the blur correction.

**EXIT:**

Return to the Playback Menu.

Blur correction icon



- 3** Select “YES”, and press the SET button.

- Image processing begins.
- During image processing, “Processing” is shown on the screen.
- When processing is completed, the modified image is shown. Check the image to see if the post-processing result is satisfactory.

---

**4** If the modified image is satisfactory, press the **SET** button.

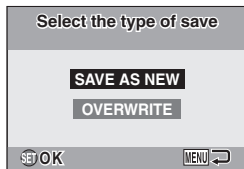
- The screen to save the corrected image appears.
- To discontinue the procedure, press the **MENU** button. The modified image is discarded, and you are returned to the Blur Correction Screen.

**SAVE AS NEW:**

The modified image is saved as a separate image, and the original image is preserved.

**OVERWRITE:**

The original file is deleted, and only the modified image is saved.



---

**5** Select the desired method to save the modified image, and press the **SET** button.

- The modified image is saved, and you are returned to the Blur Correction Screen.

---

**HINT**

**About the blur correction icon**

- On the Blur Correction Screen, an icon indicating the degree of blur appears.



: Blur correction unnecessary or blur correction completed.



: Blur correction possible



: Blur correction not possible

**If the “Blur correction not successful” message appears...**

- The camera was not able to successfully repair the image.
- The correction function works to automatically edit flaws that the camera detects in captured images. In some cases, the camera may not be able to repair the image.
- Blur correction is not possible for images captured at a shutter speed of 1/8 sec or less, for resized images, or for images captured using a different digital camera. Also, blur correction may not be possible in cases of extreme blur.

**Concerning the date and time information for the modified image**

- The date display that is shown when an edited image is played back is the date that the image was saved after it was modified.

---

# CONTRAST CORRECTION

---

Add contrast (light and dark) to an image to make it clearer.

---

- 1** Display the image to be modified, and display the Playback Menu (page 82).
- 

- 2** Select “**CONTRAST CORRECT**”, and press the **SET** button.

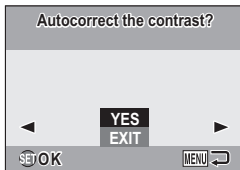
- The Contrast Correction Screen appears.

**YES:**

Proceed with the contrast correction.

**EXIT:**

Return to the Playback Menu.



- 3** Select “**YES**”, and press the **SET** button.

- Image processing begins.
- During image processing, “Processing” is shown on the screen.
- In some cases, it may take several seconds to process the image.
- When processing is completed, the modified image is shown. Check the image to see if the post-processing result is satisfactory.

---

**4** If the modified image is satisfactory, press the **SET** button.

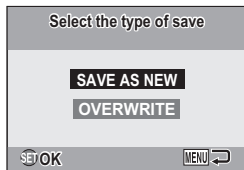
- The screen to save the corrected image appears.
- To discontinue the procedure, press the **MENU** button. The modified image is discarded, and you are returned to the Contrast Correction Screen.

**SAVE AS NEW:**

The modified image is saved as a separate image, and the original image is preserved.

**OVERWRITE:**

The original file is deleted, and only the modified image is saved.



---

**5** Select the desired method to save the modified image, and press the **SET** button.

- The modified image is saved, and you are returned to the Contrast Correction Screen.

---

**HINT**

**Concerning the date and time information for the modified image**

- The date display that is shown when an edited image is played back is the date that the image was saved after it was modified.

---

# RED-EYE CORRECTION

---

If you photograph your subjects at night using the flash, they may appear in the image with glowing red eyes (red-eye effect). Now you can amend the image so that the subjects' eyes appear more natural (red-eye correction).

---

**1** Display the image to be modified, and display the Playback Menu (page 82).

---

**2** Select “RED-EYE CORRECT.”, and press the SET button.

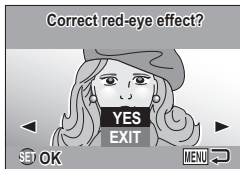
- The Red-eye Correction Screen appears.

**YES:**

Proceed with the red-eye correction.

**EXIT:**

Return to the Playback Menu.



---

**3** Select “YES”, and press the SET button.

- Image processing begins.
- During image processing, “Processing” is shown on the screen.
- When processing is completed, the modified image is shown. Check the image to see if the post-processing result is satisfactory.

---

**4** If the modified image is satisfactory, press the **SET** button.

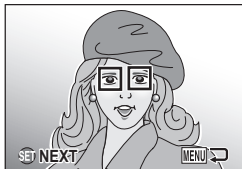
- The screen to save the corrected image appears.
- To discontinue the procedure, press the **MENU** button. The modified image is discarded, and you are returned to the Red-eye Correction Screen.

**SAVE AS NEW:**

The modified image is saved as a separate image, and the original image is preserved.

**OVERWRITE:**

The original file is deleted, and only the modified image is saved.



---

**5** Select the desired method to save the modified image, and press the **SET** button.

- The modified image is saved, and you are returned to the Red-eye Correction Screen.

---

**HINT**

**If the “Red-eye correction not successful” message appears...**

- The camera was not able to successfully correct the red-eye effect.
- The red-eye correction function works to automatically edit the red-eye effect that the camera detects in captured images. In some cases, the camera may fail to correctly detect the red-eye effect, or it may incorrectly identify the red-eye effect where it does not exist.

**Concerning the date and time information for the modified image**

- The date display that is shown when an edited image is played back is the date that the image was saved after it was modified.

---

# COPY DATA

---

Images recorded in the camera's internal memory can be copied to the card, and likewise from the card to the internal memory.

---

**1** Insert the card in the camera (page 21).

---

**2** Display the Playback Menu (page 82).

---

**3** Select "FILE COPY" and press the **SET** button.

- The screen to copy files appears.

---

**4** Select the copy direction.

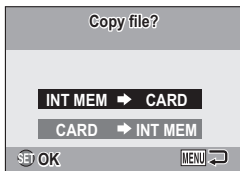
**INT MEM → CARD:**

Copy image data from the internal memory to the card.

**CARD → INT MEM:**

Copy image data from the card to the internal memory.

\* If no card is set in the camera, you cannot copy data.





---

## 5 Press the SET button.

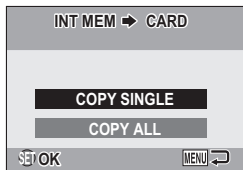
- The screen to select the type of copy appears.
- The copy source image is shown in the background on the screen.

### **COPY SINGLE:**

Copy the data for one image.

### **COPY ALL:**

Copy all the data from the copy source to the copy destination.



---

## 6 Select the desired type of copy.

### **<When selecting COPY SINGLE>**

- ① Press the [◀] or [▶] button to display the image you wish to copy.
- ② Press the [▲] or [▼] button to select "COPY SINGLE".

### **<When selecting COPY ALL>**

- ① Press the [▲] or [▼] button to select "COPY ALL".

---

## 7 Press the SET button.

- The files are copied.

---

# PRINT SETTINGS

---

In addition to using your printer to print out still images captured with your camera, as with conventional film, you can have prints made at shops offering digital print services. Moreover, this camera is DPOF-compatible, so you can use the camera to specify the number of prints, or whether or not the date is displayed on the print.

## Display the screen to set the print settings

---

**1** Display the Playback Menu (page 82).

**2** Select “PRINT INSTRUCTIONS” and press the **SET** button.

- The screen to set the print settings appears.

**EACH IMAGE:**

The print settings are specified for each individual image.

**ALL IMAGES:**

The specified print settings apply to all the still images.

**ALL CLEAR:**

Clear all the print settings.



---

**HINT****Printing a single frame from a video clip**

- To print with a printer or have the digital print service shop print out a still image from a video clip, you must first save it (extract still) as a still image (page 52).

**About the DPOF format**

- DPOF (Digital Print Order Format) is a print order format. You can connect your camera to a DPOF-compatible printer to produce your prints. You can also set the print settings (page 127) for the desired images, and then have the reserved images printed automatically.

**About the finished prints**

- Images that have been rotated will be printed in their original orientation.
- The quality of the print output will differ depending on the print service and printer used.

---

**CAUTION**

- It is not possible to set the print settings when there are 10,000 or more files saved on the card.

---

## PRINT SETTINGS

---

### Specifying date imprinting and number of prints

You can specify print settings for each individual image (EACH IMAGE), or apply the print settings to all the images on the card (ALL IMAGES).

---

**1** Display the screen to set the print settings (page 95).

**2** Select “EACH IMAGE” or “ALL IMAGES”.

**EACH IMAGE:**

The set print settings are applied only to the image currently displayed.

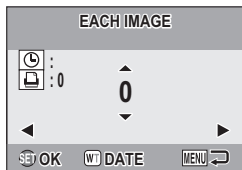
**ALL IMAGES:**

The set print settings are applied to all the still images on the card.



**3** Press the SET button.

- The Date/Copies Print Screen appears.
- If “EACH IMAGE” was selected, press the [◀] or [▶] button to display the desired image to print.
- The print settings for the currently displayed image are shown in the upper left area of the monitor. You can press the [◀] or [▶] button to confirm the print settings for each image.

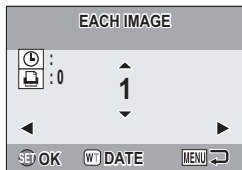


## 4 Specify the number of prints and whether the date is imprinted.

- Please specify the number of prints before setting the date imprint setting. The date imprint setting cannot be set until the number of prints has been entered.

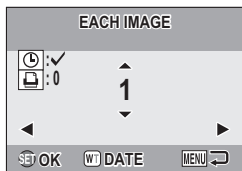
### <Specifying the number of prints>

- Press the [▲] or [▼] button to specify the number of prints.
  - Press the [▲] or [▼] button until the desired number of prints is displayed.



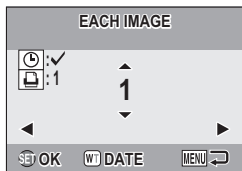
### <Specifying dated prints>

- Press [W] on the zoom switch to add a check mark (✓) next to the clock icon.



## 5 Press the SET button.

- This completes the settings for the number of prints and date imprinting.
- If you press the MENU button, you are returned to the screen to set the print settings (step 1).



## CAUTION

- Do not specify dated prints for images that were captured with the date imprint function (page 81) set to ON, or else the date will appear on the photo print twice.

---

## PRINT SETTINGS

---

### Clearing all the print settings

Delete the print settings for all images.

- 
- 1 Display the screen to set the print settings (page 95).

- 
- 2 Select "ALL CLEAR".



- 
- 3 Press the SET button.
    - The Confirm All Clear Screen appears.
      - YES:** Clear the print settings for all images.
      - EXIT:** Cancel the clear procedure and return to the screen to set the print settings.

- 
- 4 Select "YES", and press the SET button.
    - All the print settings are cleared and you are returned to the Playback Menu.

---

# SLIDESHOW PLAYBACK

---

## 1 Display the Playback Menu (page 82).

## 2 Select "SLIDESHOW" and press the SET button.

- The screen to set the slideshow appears.

**TIME:** Adjust the transition speed (the period that an image is displayed before it changes to the next image).

**EFFECT:** Select a transition effect as an image changes to the next image.

**BGM:** Specify the settings for playing background music during slideshow playback.

**START:** Begin slideshow playback.



### <Changing the slideshow controls>

- ① Select one of the slideshow controls, and press the SET button.
- ② Press the [▲] or [▼] button to change the setting.
- ③ Press the SET button.

## 3 Select "START", and press the SET button.

- Slideshow playback starts.
- To stop slideshow playback, press the SET button or MENU button.

---

### HINT

- Audio data is not played during slideshow playback.

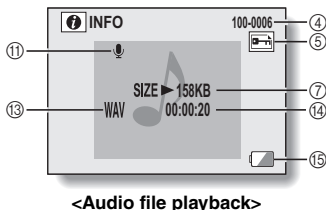
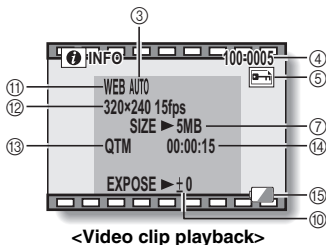
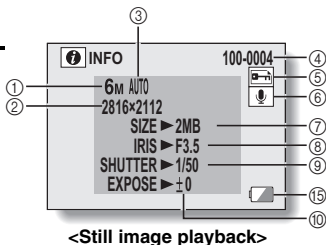
# DISPLAYING IMAGE PROPERTIES (INFORMATION SCREEN)

On the Information Screen you can check what the settings were when an image was captured.

## 1 Display the desired image.

## 2 Press and hold the MENU button for at least 1 second.

- The Information Screen appears.
- If the MENU button is pressed again, the Information Screen is canceled.



- ① Resolution setting
- ② Resolution
- ③ Scene function setting
- ④ Image number
- ⑤ Protect setting
- ⑥ Voice memo setting
- ⑦ File size
- ⑧ Aperture value
- ⑨ Shutter speed
- ⑩ Exposure correction setting
- ⑪ Video size setting/  
audio file indicator
- ⑫ Resolution and frame  
rate
- ⑬ File format
- ⑭ Playback time
- ⑮ Remaining battery power



# DISPLAYING THE OPTION MENU

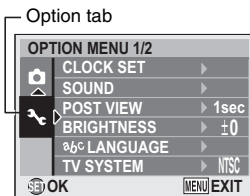
The Option Menu is used to adjust various camera settings.

## 1 Display the Recording Menu or Playback Menu.

- Recording Menu, see page 66
- Playback Menu, see page 82

## 2 Press the [▲] or [▼] button to select the option tab .

- The Option Menu appears.



## To exit the Option Menu

**To return to the Shooting Screen or Playback Screen**

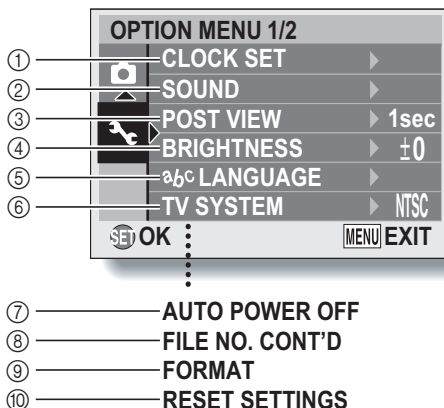
→ Press the MENU button.

**To return to the Recording Menu or the Playback Menu**

→ With the option tab  selected, press the [▲] or [▼] button.

## DISPLAYING THE OPTION MENU

### Overview of the Option Menu



- ① **[Date and time setting] (page 25)**
  - Set the camera's internal clock.
- ② **[Sounds] (page 105)**
  - Adjust the sounds produced by the camera.
- ③ **[Post-view] (page 107)**
  - Specify how long a still image is displayed on the monitor after it is captured.
- ④ **[LCD brightness] (page 35)**
  - Adjust the brightness of the monitor.
- ⑤ **[<sup>abc</sup> language] (page 108)**
  - Select the language in which the monitor messages are displayed.
- ⑥ **[TV system setting] (page 109)**
  - Select the type of TV signal that is output from the camera's USB/AV terminal.
- ⑦ **[Auto power off] (page 110)**
  - Specify the time elapsed before the auto power off function operates to turn the camera off.
- ⑧ **[File number memory] (page 111)**
  - Set the file number memory function to ON or OFF.
- ⑨ **[Format] (page 114)**
  - Reformat the camera's internal memory or the card installed in the camera.
- ⑩ **[Reset camera settings] (page 116)**
  - Reset the camera to the factory-preset settings.

- ⑦ through ⑩ are displayed when you press the [▲] or [▼] button to scroll.

---

# SOUNDS

---

Set the sounds that are produced by the camera.

---

## 1 Display the Option Menu (page 102).

## 2 Select “SOUND” and press the SET button.

- The screen to set the sounds appears.

### OPERATION VOL:

Volume setting for all camera buttons.

### TURN ON/OFF:

Mute or enable the sound that is produced when the camera is turned on or off.

### SHUTTER:

Select the sound that is produced when the shutter button is pressed.

### KEY SW:

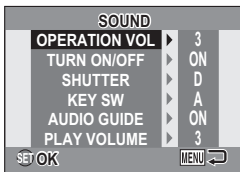
Select the sound that is produced when a camera button (SET button, MENU button, etc.) is pressed.

### AUDIO GUIDE:

Mute or enable the camera's audio help guide.

### PLAY VOLUME:

Adjust the volume for playing back video clips and audio files.



---

### 3 Select the desired item, and press the SET button.

---

### 4 Press the [▲] or [▼] button to change the setting.

#### <If “TURN ON/OFF” or “AUDIO GUIDE” is selected>

- The respective screen to enable or disable the sound appears.  
**ON:** Activates the sound.  
**OFF:** Deactivates the sound.

#### <If “SHUTTER” or “KEY SW” is selected>

- The respective screen to select the sound appears.
- Select from 5 different sounds (A to E) and “OFF”.
- After selecting a sound, press the [▶] button to preview it.
- If “OFF” is selected, no sound is produced.

#### <If “OPERATION VOL” or “PLAY VOLUME” is selected>

- The screen to select the volume setting appears.
- You can select a volume setting from 1 (minimum) to 5 (maximum).
- If “OFF” is selected, no sound is produced.

---

### 5 Press the SET button.

- The sound settings are completed.
- To return to the Option Menu, press the MENU button.

---

# POST-VIEW SETTING

---

Specify the duration that the captured image appears on the monitor (post-view) after the shutter button is pressed.

---

**1** Display the Option Menu (page 102).

---

**2** Select **"POST VIEW"** and press the **SET** button.

- The Post View Menu appears.

**1sec:**

The post-view image is displayed for 1 second.

**2sec:**

The post-view image is displayed for 2 seconds.

**OFF:**

The post-view image is not displayed.

---

**3** Select the desired setting, and press the **SET** button.

- This completes the post-view setting.

---

# SCREEN LANGUAGE

---

You can set the monitor of your camera to display the messages in any one of several languages.

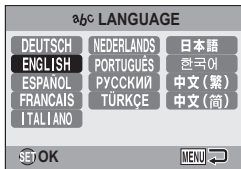
---

## 1 Display the Option Menu (page 102).

---

## 2 Select “ LANGUAGE” and press the SET button.

- The screen to select the display language appears.



## 3 Select the desired language, and press the SET button.

- The selected display language is set.

---

# TV SYSTEM SETTING

---

Specify the type of image signal that is output from your camera's USB/AV terminal.

---

**1** Display the Option Menu (page 102).

---

**2** Select "TV SYSTEM" and press the SET button.

- The TV System Menu appears.

**NTSC:**

Outputs NTSC video signals.

**PAL:**

Outputs PAL video signals.

---

**3** Select the desired setting, and press the SET button.

- The selected TV system is set.
- 

## HINT

**If no image appears on the TV...**

- If the TV system setting is not correct for the connected equipment, no image will appear on the TV.



---

# AUTO POWER OFF FUNCTION

---

Your camera has an “auto power off” function whereby the power automatically turns off after a specified period of inactivity. The auto power off function works to conserve the battery pack power when the camera is not being used, or to prevent the battery pack from dying if the camera has accidentally been left on. You can specify the elapsed time (standby time) before the auto power off function operates to turn the camera off.

---

**1** Display the Option Menu (page 102).

---

**2** Select “**AUTO POWER OFF**” and press the **SET** button.

- The screen to set the standby time appears.

**RECORDING:**

Set the standby time for the shooting mode.

**PLAYBACK:**

Set the standby time for the playback mode.



---

**3** Select the desired option, and press the **SET** button.

- The Standby Time Menu appears.

---

**4** Press the [**▲**] or [**▼**] button to select the standby time.

---

**5** Press the **SET** button.

- The auto power off function is set.
- To return to the Option Menu, press the **MENU** button.

---

# FILE NO. MEMORY

---

If a newly formatted card is used, the file name (image number) of the captured image automatically begins from 0001. If the card is subsequently reformatted, or if a different reformatted card is used, the file names again begin from 0001. This is because the file number memory function is set to "OFF", and consequently it results in more than one card containing images with the same numbers. By setting the file number memory function to "ON", even if the card is reformatted or the card is replaced with another card, the consecutive numbering of file names continues from the last number recorded by the camera.

## <File number memory function "OFF">

	File name (image number)
Card A	0001, 0002 ..... 0012, 0013

⋮  
Replace card

Card B	0001, 0002 ..... 0012, 0013
--------	-----------------------------

## <File number memory function "ON">

	File name (image number)
Card A	0001, 0002 ..... 0012, 0013

⋮  
Replace card

Card B	0014, 0015 ..... 0025, 0026
--------	-----------------------------

- If Card B already has files in it when it replaces Card A, file names are assigned as follows.

**When the highest file number on Card B (before replacing) is lower than the highest file number on Card A:** the file name of the next recorded image continues from last file name recorded on Card A.



**When the highest file number on Card B (before replacing) is higher than the highest file number on Card A:** the file name of the next recorded image continues from last file name recorded on Card B.




---

## HINT

### What about the internal memory?

- The file number reset function works the same for the internal memory.

---

## FILE NO. MEMORY

---

- 1** Display the Option Menu (page 102).
- 2** Select “FILE NO. CONT'D”, and press the SET button.  
**ON:**  
The file number memory function is on.  
**OFF:**  
The file number memory function is off.
- 3** Select the desired setting, and press the SET button.
  - The selected file number memory function is set.

---

### HINT

- Until the file number memory function is turned “OFF”, consecutive file names are assigned. It is recommended that the file number memory function be returned to “OFF” at the end of each photography session.

# INITIALIZING THE CARD MEMORY AND INTERNAL MEMORY

A card must be formatted with this camera:

- After purchasing, when used for the first time, or
- If it was formatted using a personal computer or another digital camera.

The card cannot be reformatted if the lock switch is set to the "LOCK" position. Proceed with the reformat procedure after setting the lock switch to the unlocked position.

**1** To reformat a card, install it in the camera. To reformat the camera's internal memory, remove the card from the camera.

**2** Display the Option Menu (page 102).

**3** Select "FORMAT" and press the SET button.

<Card format>

- The screen to select the type of format appears.
- Follow steps 4 to 6.

**FORMAT:**

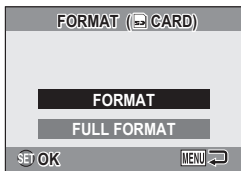
A normal formatting is executed.

**FULL FORMAT:**

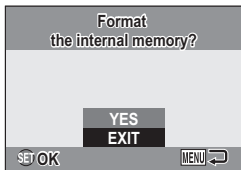
The entire card is scanned and reformatted.

<Internal memory format>

- The screen to confirm formatting appears.
- Follow steps 5 and 6.



<With card installed>



<No card installed>

---

## INITIALIZING THE CARD MEMORY AND INTERNAL MEMORY

---

---

### **4** Select the desired format option, and press the SET button.

- The screen to confirm formatting appears.

---

### **5** Select “YES”.

---

### **6** Press the SET button.

- Formatting begins.
- During formatting, “Formatting” and “do not power off” are shown on the monitor.

---

## CAUTION

### **Caution during reformatting**

- Please do not turn off the camera or insert/remove the card while the card is being formatted.

### **Reformatting erases the data**

- When the card or internal memory is initialized, all the recorded data is erased. Protected data is also erased, so before reformatting a card, any data you want to keep should be copied to your personal computer's hard disk or other storage medium.

### **Caution regarding disposing/transferring the card (recovering data from a reformatted card)**

- If a card is reformatted or the data is erased from the card using the camera or a computer, the card's control data may be merely modified and the data itself may not be completely erased from the card.
- In some cases it may be possible to recover the data from a reformatted card using special software for that purpose. However, if the camera is used to execute a full format, it will be impossible to recover the data even by the use of data recovery software.
- If you are disposing of a card, it is recommended that you physically destroy it. If you are transferring the card to someone else to use, it is recommended that you use the camera's full format function to reformat the card, or use commercially available software for erasing card data. Managing data is the responsibility of the user.

---

## HINT

### **To cancel reformatting**

- In step 5, select “EXIT”, and press the SET button.

---

# RESETTING THE CAMERA SETTINGS

---

Reset the camera to the factory-preset settings.

---

## **1** Display the Option Menu (page 102).

---

## **2** Select “RESET SETTINGS” and press the SET button.

- The Reset Settings Menu appears.

**YES:**

Reset to the factory-preset settings.

**NO:**

Do not change the settings, and return to the Option Menu.

---

## **3** Select “YES”, and press the SET button.

- The camera settings are reset to the factory-preset settings.
- 

### **HINT**

- Note that the following settings do not change with this procedure:

**Date and time setting**

**Language setting**

**TV system setting**

**File No. memory setting**

---

# CHECKING THE REMAINING INTERNAL MEMORY AND CARD MEMORY

---

You can check the possible number of images, audio recording time and video clip recording time remaining on the card. For a table showing the maximum number of images and recording time for the internal memory and for a specific card, please see “Possible Number of Images/Video Recording Time/Audio Recording Time” on page 147.

---

## 1 Press the ON/OFF button to turn the camera on.

### <To check the remaining number of still images>

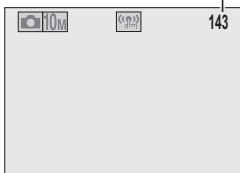
Set the shooting mode to the single-shot or sequential shots mode (page 33).

### <To check the remaining video clip recording time>

Set the shooting mode to the video clip recording mode (page 33).

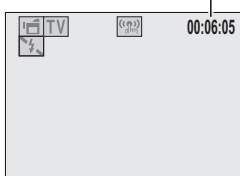
- The remaining recording time is shown on the monitor.
- The remaining number of images and video recording time will differ depending on the resolution and video size settings.

Remaining number of images



<Still Image Shooting Screen>

Remaining recording time



<Video Clip Recording Screen>

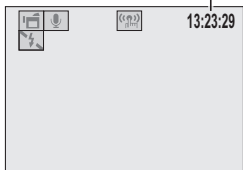


## For audio data

### 1 Set the camera to the audio recording mode (page 71).

- The remaining audio recording time is shown.

Remaining recording time




### HINT

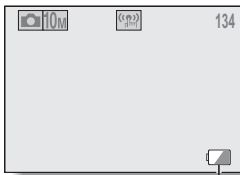
- When the remaining number of images or the remaining video recording time is "0", you cannot capture any more images. To capture more images, either install a new card, or save the images to a computer and then erase them (page 45) from the card.
- When the remaining number of images or the remaining video recording time is "0", it may be possible to capture a few more images by changing the resolution setting or video clip mode setting (page 70).
- The maximum number of images is 9,999, and the maximum video/audio recording time is 99:59:59. Note that if a large-capacity card is used, the remaining number of images or recording time may not be correctly displayed.

# CHECKING THE REMAINING BATTERY CHARGE






When using the battery pack, the remaining battery pack charge can be checked on the monitor. Make sure to check this indicator before capturing an image. For an indication of the possible length of time for battery pack operation, see page 146.

## 1 Press the ON/OFF button to turn the camera on.

- The battery pack remaining charge indicator appears in the lower right corner of the monitor.
- Due to the battery pack characteristics, when the ambient temperature is low,  may appear early for an incorrect indication of the remaining charge. Also, depending on the conditions of use of the camera or the ambient conditions (temperature, etc.), the indicated remaining charge may change. Therefore, this indication can only be used as a general approximation of the remaining charge.



Battery pack remaining charge indicator

Battery pack remaining charge indicator	Battery remaining charge
No indication, or 	Approx. full. (  appears only in certain operation modes.)
	Power is low.
	It will soon be impossible to capture or play back images.
	If this icon flashes when the shutter button is pressed, images cannot be captured. Recharge the battery pack.

---

## HINT

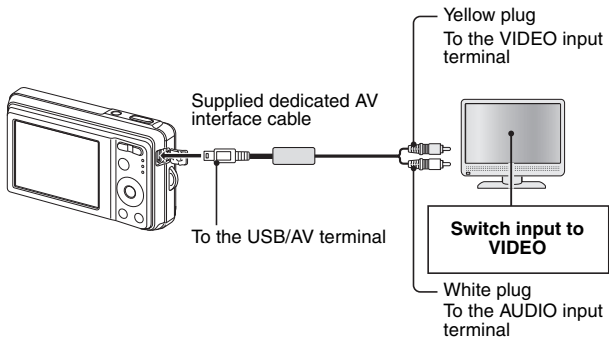
- If any data is present, you can also check the remaining battery pack charge on the Information Screen (page 101).
- Battery life may differ even among battery packs of the same type.
- Depending on the usage of the camera (such as the number of times the flash is used, etc.) or the ambient temperature (temperatures below 10°C [50°F]) the number of images that can be saved on a fully charged battery pack will vary greatly.
- It is recommended that you prepare an extra battery pack(s) when taking pictures at a wedding or while traveling, for example, so you don't miss capturing images of important moments due to the battery pack power running out. The same is recommended for taking photos in cold environments. (In a ski area, for example, the battery pack can be kept warm in your pocket until ready to use.)

---

# CONNECTING TO A TV

---

Connect the supplied AV interface cable from the USB/AV terminal on the digital camera to the AUDIO and VIDEO input terminals on the TV.



## Playback

- After connecting the digital camera to the television, set the TV input switch to VIDEO input.
- When an AV interface cable is connected, no image appears on the camera's monitor.
- The playback method is the same as when viewing images on the camera's monitor.
- The same playback procedure as when playing back with the camera is used to play back voice memos and audio recordings as well.

**Voice memo playback: see page 39**

**Audio file playback: see page 72**

---

## CAUTION

### Insert and pull out the cable carefully

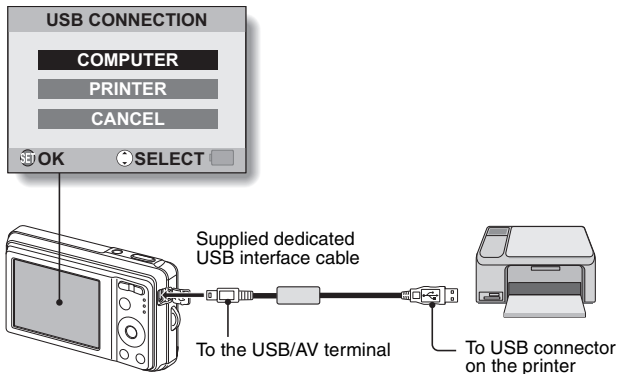
- When connecting the cables, make sure that the cable plugs are correctly oriented and that they match the shapes of the terminal sockets on the devices. Push the plugs in straight when connecting them. If undue force is used to connect a cable, it may permanently damage the connector pins in the terminal socket.
- Do not use excessive force when connecting and disconnecting cables.

# DIRECT PRINTING

Your camera supports the PictBridge function. By connecting the camera directly to a PictBridge-enabled printer, the camera's monitor can be used to select images and initiate printing (PictBridge printing).

## Print preparations

- 1 **Turn the printer on, use the supplied USB interface cable to connect the camera to the printer.**
  - Connect the camera's USB/AV terminal to the printer's USB connector.
  - The USB Connection Screen appears on the camera's monitor.

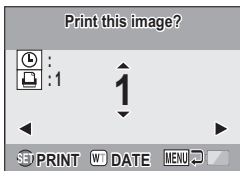


---

## DIRECT PRINTING

---

- 2** Select “PRINTER”, and press the **SET** button.
- The screen to select the images to print appears.



---

### CAUTION

#### Caution when connecting a printer

- If the power to the printer is turned off while it is connected, the camera may not operate correctly. If the camera does not operate correctly, disconnect the USB interface cable, turn off the camera, and then reconnect the cable.
- During PictBridge printing, the camera's button operation response is slower.
- If the camera is powered by the battery pack for printing, make sure that the remaining battery charge is sufficient.

#### Insert and pull out the cable carefully

- When connecting the cables, make sure that the cable plugs are correctly oriented and that they match the shapes of the terminal sockets on the devices. Push the plugs in straight when connecting them. If undue force is used to connect a cable, it may permanently damage the connector pins in the terminal socket.
- Do not use excessive force when connecting and disconnecting cables.

## To select one image and print it (print selected image)

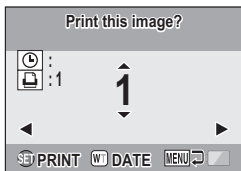
Procedure to select one still image and print it.

---

### 1 Complete the printing setup (page 122).

---

- 2 Press the [◀] or [▶] button.
- Display the image you wish to print.



---

## DIRECT PRINTING


---

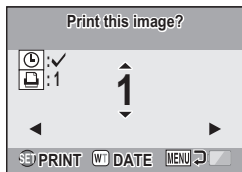
### 3 Specify the number of prints or date-imprinted prints.

#### <Specifying the number of prints>

- Press the [▲] or [▼] button to specify the number of prints.
  - Press the [▲] or [▼] button until the desired number of prints is displayed.

#### <Specifying dated prints>

- Press [W] on the zoom switch to add a check mark (✓) next to .



---

### 4 Press the SET button.

- Printing begins.

---

#### HINT

##### To cancel printing

- ① During printing, press the [▼] button.
  - The Confirm Cancel Printing Screen appears.
- ② Select "YES", and press the SET button.
  - If "EXIT" is selected and the SET button is pressed, printing resumes.

---

#### CAUTION

- Do not specify dated prints for images that were captured with the date imprint function (page 81) set to ON, or else the date will appear on the photo print twice.



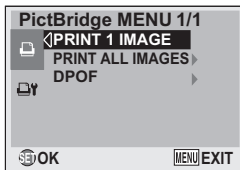
## To print all the images (all images)

Print all of the images.

### 1 Complete the printing setup (page 122).

### 2 Press the MENU button.

- The PictBridge Menu appears.



### 3 Select "PRINT ALL IMAGES", and press the SET button.


- The Print All Images Screen appears.

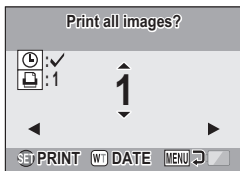
### 4 Specify the number of prints or date-imprinted prints.

#### <Specifying the number of prints>

- Press the [▲] or [▼] button to specify the number of prints.
  - Press the [▲] or [▼] button until the desired number of prints is displayed.

#### <Specifying dated prints>

- Press [W] on the zoom switch to add a check mark (✓) next to the .



### 5 Press the SET button.

- Printing begins.

### CAUTION

Printing is not possible if there are more than 999 still images in the card or internal memory

- Delete unwanted images before printing.

---

## DIRECT PRINTING

---

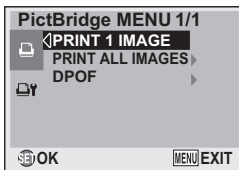
### To print the images that are set to print (print reserved images)

Procedure to print all the images that are set to print.

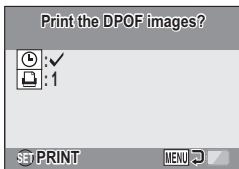
---

- 1 Make the print settings (page 95), and complete the printing setup (page 122).**

- 2 Press the MENU button.**
  - The PictBridge Menu appears.



- 3 Select "DPOF", and press the SET button.**
  - The Print Scheduled Images Screen appears.
  - An image that is set to print (page 95) is displayed.



- 4 Press the SET button.**
  - Printing begins.
  - Printing begins about 1 minute after the SET button is pressed.

---

#### HINT

- In step 3, if you press the [◀] or [▶] button, you can confirm the images that are set to print and their DPOF settings.

---

#### CAUTION

- Reserved images printing is not possible if a printer is used that does not support your camera's DPOF function.
- Multi-prints are not possible.

## To change the printer settings and print images (change printer settings)

Images are printed according to settings specified by the camera, such as paper type, size, layout, printing quality, etc.

### 1 Complete the printing setup (page 122).

### 2 Press the MENU button.

- The PictBridge Menu appears.

### 3 Select the printer settings tab , and press the SET button.

- The Printer Settings Menu appears.

**DATE STAMP:**

Print the date the photo was taken.

**MEDIA TYPE:**

Specify the type of paper used for printing.

**PAPER SIZE:**

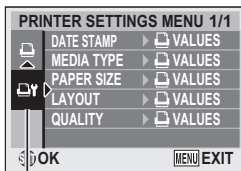
Specify the size of paper used for printing.

**LAYOUT:**

Specify how the images are to be arranged on the paper.

**QUALITY:**

Select the print quality for the images.



Printer Settings tab

---

## DIRECT PRINTING

---

### 4 Adjust the printer settings.



- ① Use the arrow buttons to select a printer setting parameter, and press the SET button.
  - The screen to set the selected parameter appears.
- ② Press the [▲] or [▼] button to adjust the setting, and press the SET button.
  - The selected parameter is set, and you are returned to the Printer Settings Menu.
  - Follow the same procedure to adjust the other parameters, as desired.
  - The contents of the settings that can be made for each parameter will differ depending on the printer.

#### <When “ VALUES” is selected>

- The images will be printed according to the settings specified on the printer side.


---

### HINT

- The parameters that are displayed on the Printer Settings Menu will differ depending on the printer that is connected.
- To use printer functions which do not appear on your camera's Printer Settings Menu, select “ VALUES”.
- If a function set by the camera is not available in the printer, the camera's printer settings will automatically change to “ VALUES”.


# COMMONLY ASKED QUESTIONS

If you have a question about the camera operation, you might find the answer in this compilation of commonly asked questions.

	Question	Answer	Action
Power	Why doesn't the power turn on?	Due to cold temperatures, the battery pack temporarily lost its power.	Place the camera in your pocket to warm it up before using it.
	Why is the battery pack consumed so quickly?	The ambient temperature is very low.	Keep the battery pack in an environment of 10 to 40°C (50 to 104°F).
		The battery pack life has expired.	Replace with a new battery pack.
	Why does the  icon appear?	The remaining battery pack power is low.	Recharge the battery pack.
Shooting	Why doesn't the touch sensor work?	You are wearing gloves.	Remove the glove from the hand pressing the shutter button.
	Why doesn't the flash operate?	The camera has determined that the image is bright enough and the flash is not necessary.	Not a malfunction. Capture the image; the camera will determine when the flash is necessary.

## COMMONLY ASKED QUESTIONS

	Question	Answer	Action
Shooting	Are the settings retained even after the camera is turned off?	—	All settings except the self-timer and the exposure correction are retained even after the camera is turned off.
	Which resolution setting should I use?	—	Select the resolution setting according to the intended use: <b>10M</b> <b>6M</b> <b>4M</b> <b>2.5M</b> : Appropriate for printing letter-size or larger, and for printing a close-up of part of a photo (trimming). <b>2M</b> : For printing standard photo (photo service) sizes. <b>0.3M</b> : For photos displayed on a web page, or sent as e-mail attachments.
	What is the difference between the digital zoom and the optical zoom?	—	Because shooting with the optical zoom uses the optics of a physical lens, you can shoot without losing minute details in the image. The digital zoom, on the other hand, works by magnifying a portion of the image that hits the CCD sensor and may produce a coarser image.

	Question	Answer	Action
Shooting	How can I get the distant view into focus?	—	Set the scene function to the landscape  mode when photographing. Or, set the focus range setting to manual focus [MF], and set the distance to ∞.
Monitor	When used in cold weather, why does the image seem to leave traces as it moves?	Condition due to the liquid crystals.	Not a malfunction. Spots that appear in the monitor only appear in the monitor and will not be recorded with the images.
	Why does the displayed image contain some red, blue and green dots, or why are black spots visible?		

## COMMONLY ASKED QUESTIONS

	Question	Answer	Action
<b>Viewing images</b>	Why is the image too bright?	The subject was too bright.	When capturing an image, devise a way to compensate for a bright subject, for example, by changing the shooting angle.
	Why is the image out of focus?	The focus is not locked properly.	Hold the camera correctly, and when the image is locked in focus, gently press the shutter button all the way to capture the image.
	Why doesn't the zoom jump playback work?	Zoom jump playback does not work for an image that was created from a magnified portion of a zoom jump image, or for video clips.	Not a malfunction.
	Why is there no image (□ is shown)?	This may happen when trying to play back images stored on a card from a different digital camera.	Play back images that were recorded on a card using this camera.
	Why do vertical stripes appear?	If a bright subject is shot in the video clip recording mode, vertical stripes may appear on the monitor or in the image.	Not a malfunction.



	Question	Answer	Action
<b>Viewing images</b>	Why isn't the magnified image clear?	Due to the characteristics of the camera, magnified images appear less clear.	Not a malfunction.
	Why isn't the captured image clear?	The image was captured using the digital zoom.	Not a malfunction. Zoom in only within the optical zoom range when shooting.
	Can I play back image data that I edited using my computer?	—	We cannot guarantee the accurate playback of data that has been edited using a computer.
<b>Printing</b>	Why does a message appear during PictBridge printing?	There is a problem with the printer.	Please refer to the instruction manual for your printer.
<b>Misc.</b>	Why does the "Card full" or "Internal memory full" message appear?	There is no more available memory on the card or in the camera's internal memory.	Delete unnecessary data, or use a card that has more memory available.
	Why does the "Card is protected" message appear?	The lock switch on the card is in the locked (protect) position.	Move the lock switch to the unlocked position.

## COMMONLY ASKED QUESTIONS

	Question	Answer	Action
<b>Misc.</b>	Why can't the camera be operated?	A temporary internal circuitry problem may be the cause.	Remove the battery pack from the camera, wait a few minutes, then reinstall the battery pack and try again.
	Can I use my camera abroad?	—	If you have questions about using the power cord abroad, please consult with a dealer near you for advice.
	Why does the "System error" message appear?	A problem has occurred within the camera or card.	<p>Check the following items:</p> <ul style="list-style-type: none"> <li>① Remove the card and then install it again.</li> <li>② Remove the battery pack and then install them again.</li> <li>③ Install a different card.</li> </ul> <p>If "System error" still appears after performing the above steps, then take the camera to the dealer for service.</p>

# TROUBLESHOOTING

Before taking your camera to the repair shop, check the following table for a possible solution to the problem.

## CAMERA

	Problem	Cause	Action	Reference page
Power	No power.	The battery pack is dead.	Recharge the battery pack.	17
		The battery pack has not been inserted correctly.	Reinsert the battery pack, making sure to orient it correctly.	21
		The battery/card compartment cover is not completely closed.	Close the battery/card compartment cover completely.	
	The camera turns off by itself.	The power save function is operating.	Not a malfunction.	24
Shooting	An image is not captured when the shutter button is pressed.	The power is not turned on.	If the auto power off function was activated, turn the camera on before shooting. If the camera was turned off, press the ON/OFF button to turn it on.	24

## TROUBLESHOOTING

	Problem	Cause	Action	Reference page
Shooting	An image is not captured when the shutter button is pressed.	The maximum number of images that can be captured or the maximum video clip recording time has been reached.	Install a new card.	21
			Delete the images that are not necessary. Save the images to separate media, then delete all the images from the card.	45, viii
	The operation buttons (arrow buttons, MENU button, etc.) do not work.	A finger is touching the shutter button, and the focus lock is active.	Remove your finger from the shutter button, and then use the operation buttons.	—
	The flash does not operate.	The flash off mode is selected.	Set the flash to automatic flash mode or forced flash mode.	59
		The battery pack is dead.	Recharge the battery pack.	17
	The "Battery depleted" message appears.	The battery pack is consumed.	Recharge the battery pack.	17

	Problem	Cause	Action	Reference page
<b>Shooting</b>	When zooming in or out, the zoom movement stops momentarily.	The optical zoom has moved to the maximum magnification position.	Not a malfunction. Release the zoom switch, and press it again.	58
	There is noise in the captured image.	The ISO sensitivity setting is too high.	Set the ISO sensitivity to a lower setting.	77
	When recording a video clip under fluorescent lights, a noticeable flicker appears in the image.	This occurs when the shutter speed is too fast.	Set the ISO sensitivity to <b>400</b> or less.	77
<b>Monitor</b>	No playback image appears.	The playback mode is not active.	Press the playback button <b>[▶]</b> .	32
<b>Viewing images</b>	The image is too dark.	The flash was blocked by a finger or other object.	Hold the camera correctly, and make sure the flash is not obstructed.	28
		The subject was too far away.	Capture the image in the range of operation of the flash.	145






















## TROUBLESHOOTING

	Problem	Cause	Action	Reference page
Viewing images	The image is too dark.	The subject was lit from behind.	Use the forced flash mode.	59
			Use the exposure correction function.	80
		There is not enough light.	Adjust the ISO sensitivity setting.	77
	The image is too bright.	The forced flash mode is selected.	Select a different flash mode.	59
		The subject was too bright.	Use the exposure correction function.	80
		The ISO sensitivity setting is incorrect.	Set the ISO sensitivity to <b>[ISO-A]</b> .	77
	The image is not in focus.	The subject is too close to the camera.	Select the correct focus setting for your needs.	37, 63
		The focus setting is not correct.		
		The camera moved when the shutter button was pressed.	Hold the camera correctly and press the shutter button correctly.	28, 37
		The focus is not locked properly.		
		The lens is dirty.	Clean the lens.	—

	<b>Problem</b>	<b>Cause</b>	<b>Action</b>	<b>Reference page</b>
<b>Viewing images</b>	The colors of the images captured indoors are not correct.	This is due to ambient lighting.	Capture the image using the forced flash mode.	59
		The white balance setting is incorrect.	Set the white balance setting correctly.	79
	A part of the image is missing.	The handstrap or a finger was blocking the lens.	Hold the camera correctly, and make sure the lens is not obstructed.	28
	"No image" is shown.	There is no image stored in the installed card or the internal memory.	Play back after capturing images.	—
<b>Image editing</b>	You cannot edit or rotate an image.	The protect mode is set.	Cancel the protect mode.	84
<b>Misc.</b>	The "Image is protected" message appears and the data cannot be deleted.	You have attempted to delete data that is protected from accidental erasure.	Cancel the protect mode.	84
	The recording capacity is less than that indicated in the section "Possible Number of Images/Video Recording Time/Audio Recording Time".	The recording capacity is less than the value specified for the card.	Depending on the card, the capacity may be less than the specified value. Please refer to the instructions that accompanied the card.	147

## TROUBLESHOOTING

### Notes regarding the scene function

	The macro  focus range setting is not available.
	The pan  , macro  and manual focus  focus range settings are not available. The AF seeker  focus mode setting is not available. The digital zoom is not available.
	The resolution cannot be set to  or more. The flash is disabled even when shooting single shots.
	The macro  focus range setting is not available.
	
	The macro  and manual focus  focus range settings are not available. The flash is disabled even when shooting single shots. The AF seeker  focus mode setting is not available.
	The pan  , macro  and manual focus  focus range settings are not available. The AF seeker  focus mode setting is not available. The digital zoom is not available.



---

# SPECIFICATIONS


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## Camera

Type	CCD digital camera (recording and playback)
Image file format	<b>Still images:</b> JPEG format (DCF, DPOF, Exif 2.21 compliant) <b>Note:</b> Designed mainly by the Japan Electronics and Information Technology Industries Association (JEITA), DCF (Design rule for Camera File system) is standard for digital still camera image files to provide interoperability between digital photography devices for the images stored on removable memory cards. However, it is not guaranteed that all devices will support the DCF standard. <b>Video clips:</b> QuickTime Movie (Photo-JPEG) <b>Audio recordings:</b> WAVE format (monaural)
Data storage media	Internal memory: Approx. 52 MB External memory: SD Memory Card (equivalent to a 8 GB SDHC Memory Card)
Camera effective number of pixels	Approx. 10 million pixels
Image sensor	1/2.3-inch (1.1 cm) CCD Virtual number of pixels: Approx. 10.34 million pixels, interlace scan, primary color filter

## SPECIFICATIONS

Recording resolution	<b>&lt;Still image shooting&gt;</b> <b>10M</b> : 3648 × 2736 pixels <b>7.5M</b> : 3648 × 2056 pixels <b>6M</b> : 2816 × 2112 pixels <b>4M</b> : 2288 × 1712 pixels <b>2M</b> : 1600 × 1200 pixels <b>0.3M</b> : 640 × 480 pixels  <b>&lt;Video clip recording&gt;</b> <b>TV</b> : 640 × 480 pixels, 30 frames/second <b>WEB</b> : 320 × 240 pixels, 15 frames/second	
White balance	Full-auto TTL, manual setting possible	
Lens	5.0× optical zoom lens	f=6.3 mm to 31.5 mm (35 mm film camera conversion: 36 mm to 180 mm) Autofocus, 6 groups, 8 elements (4 with aspheric surfaces)
Aperture	Open F=3.5 (Wide) to 5.6 (Tele)	
Exposure control type	Programmable AE Exposure correction available from the Shooting Menu (0±1.8EV in 0.3EV steps)	
Light-measuring modes	Multi-section measuring, center-weighted measuring, spot measuring	

Range	Normal photography: 40 cm (15.75 in.) to $\infty$ (Wide), 90 cm (2.95 ft.) to $\infty$ (Tele) Macro photography: 10 cm (3.94 in.) to 50 cm (19.69 in.) (Wide), 60 cm (23.62 in.) to 1 m (3.28 ft.) (Tele)
Digital zoom	For shooting: 1 $\times$ to 4 $\times$ For playback: 1 $\times$ to 57 $\times$ (varies with resolution)
Shutter speed	Single-shot mode: 1 to 1/2,000 sec. (Maximum approx. 2 seconds when the scene function is set to fireworks  etc.) (During flash: 1/30 to 1/2,000 sec.) Sequential shots mode: 1/2 to 1/2,000 sec. Video clip recording mode: 1/30 to 1/10,000 sec.
Sensitivity (standard output sensitivity)	Single-shot mode/sequential shots mode (standard output sensitivity): Auto (ISO50 to 400)/ISO50, ISO100, ISO200, ISO400, ISO800, ISO1600, and ISO2500 (switchable from Shooting Menu) Video clip recording mode: Auto (ISO450 to 3600)/ISO450, ISO900, ISO1800, ISO3600 and ISO7200 (switchable from Shooting Menu) * Sensitivity measured in compliance with the ISO standard (ISO 12232:2006).
Monitor	2.5-inch (6.4 cm) TFT color LCD Approx. 230,000 pixels (Frame coverage: Approx. 100%) Brightness adjustment: 5-step

## SPECIFICATIONS

Flash working range		GN = 5.5 Approx. 40 cm (15.75 in.) to 2.9 m (9.51 ft.) (Wide) Approx. 60 cm (23.62 in.) to 1.8 m (5.91 ft.) (Tele)
Flash modes		Auto-flash, forced flash, flash off, red-eye reduction
Focus		TTL-type AF (9-point range finder/spot focus/AF seeker), manual focus (14 steps)
Self-timer		Approx. 2-second delay, 10-second delay
Ambient environment	Temperature	0 to 40°C (32 to 104°F) (operation), –20 to 60°C (–4 to 140°F) (storage)
	Humidity	30 to 90% (operating, no condensation) 10 to 90% (storage, no condensation)
Power supply		Lithium-ion battery pack (DB-L70) × 1
Dimensions (at narrowest part, not including grip or lens protrusion)		94.2 (W) × 56.4 (H) × 23.4 (D) mm 3.71" (W) × 2.22" (H) × 0.92" (D)
Weight		Approx. 118 g (4.16 oz.) (without battery pack and card)

## Camera connectors

USB/AV (communication/audio and video output) terminal	Dedicated regrouped jack	
	Audio output	590 mVrms (−2.4 dBs), 2.2 kΩ or less, monaural
	Video output	1.0 Vp-p, 75 Ω unbalanced, sync negative, composite video, NTSC color TV system/PAL TV system (switchable from the Option Menu)
	USB	USB 2.0 Full Speed PC camera: USB video class

## Battery life

Maximum recording time	220 images: CIPA standard (when a Toshiba 128 MB SD Memory Card is used)
Maximum playback time	260 minutes: LCD monitor on, continuous playback

- Until battery pack runs out when using a fully charged battery pack at a 25°C (77°F) ambient temperature.
- The operation time may vary depending on the conditions of the battery pack and the conditions of use. Especially when used at temperatures below 10°C (50°F), the battery pack operation time is drastically reduced.

## SPECIFICATIONS

### Possible Number of Images/Video Recording Time/Audio Recording Time

The table shows the possible number of captured images and the possible recording time for the camera's internal memory and for the commercially available 2 GB and 8 GB SD Memory Cards.

Shooting mode setting	Resolution setting	Compression rate setting	Internal memory	SD Memory Card	
				2 GB	8 GB
Single-shot mode/ Sequential shots mode	10M	FINE	15 images	585 images	2,340 images
		NORM	23 images	861 images	3,450 images
	7.5M	FINE	20 images	775 images	3,110 images
		NORM	30 images	1,140 images	4,610 images
	6M	FINE	26 images	984 images	3,950 images
		NORM	38 images	1,440 images	5,790 images
	4M	FINE	39 images	1,470 images	5,920 images
		NORM	58 images	2,130 images	8,580 images
	2M	FINE	79 images	2,950 images	11,800 images
		NORM	114 images	4,130 images	16,500 images
	0.3M	FINE	416 images	15,490 images	61,900 images
		NORM	555 images	20,600 images	82,500 images
Video clip recording mode	TV	—	36 sec.	22 min. 28 sec.	1 hr. 30 min.
	WEB	—	2 min. 46 sec.	1 hr. 43 min.	6 hr. 55 min.
Audio file mode	—	—	1 hr. 50 min.	68 hr. 54 min.	275 hr.

- Up to 9 hours of continuous audio recording is possible.
- When recording a video clip using an 8 GB card, recording terminates when the size of the file currently being recorded reaches approx. 4 GB.
- The values were determined using an SD Memory Card by Sandisk.
- Even with cards of the same capacity, the amount of data that can actually be stored may differ depending on the card brand, etc.
- The continuous shooting time for each video clip will differ depending, for example, on the card capacity, environmental conditions (temperature and shooting conditions, etc.).

## Supplied battery pack charger

Part No.		VAR-L70
Power source		AC 100 to 240 V, 50 to 60 Hz, 2.6 W
Rated output		DC 4.2 V, 330 mA
Compatible batteries		Supplied or separately sold Lithium-ion battery pack (DB-L70)
Ambient environment	Temperature	0 to 40°C (32 to 104°F) (recharge), -20 to 60°C (-4 to 140°F) (storage)
	Humidity	20 to 80% (no condensation)
Dimensions		62 (W) × 23.8 (H) × 90 (D) mm 2.44" (W) × 0.94" (H) × 3.54" (D)
Weight (without power cord)		Approx. 65 g (2.29 oz.)
Power cord rated value	VPC-E10	AC 125 V, 7 A
	VPC-E10EX	AC 250 V, 2.5 A

- The VPC-E10GX model is supplied with a power cord that is appropriate for the region of destination.
- When using the supplied battery pack charger abroad, the power cord may need to be replaced in accordance with local requirements. Please contact your local dealer for details.

## Supplied Li-ion battery pack

Part No.		DB-L70
Voltage		3.7 V
Rated output		680 mAh
Ambient environment	Temperature	0 to 40°C (32 to 104°F) (during use, recharged) -10 to 30°C (14 to 86°F) (storage)
	Humidity	10 to 90% (no condensation)
Dimensions		26.9 (W) × 7.5 (H) × 38 (D) mm 1.06 (W) × 0.30 (H) × 1.50 (D) in.
Weight		Approx. 15 g (0.53 oz.)

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## SPECIFICATIONS

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### Others

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Red Eye software© 2003-2005 FotoNation In Camera Red Eye - covered by U.S. Patent No. 6,407,777. Other patents Pending.



SDHC is a trademark.



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### CAUTION

- It is forbidden to copy this manual, whole or in part, without prior written permission.
- All images and illustrations given in this manual are for explanation purposes and may differ slightly from that of the actual product. Also, actual specifications are subject to change without prior notice and therefore may differ from the contents of this manual.



**Before capturing those important shots, be sure to first take a test shot to confirm that your camera is set up and ready to go**

- Sanyo Electric shall not be held responsible for any problems resulting from the use of this camera.
- Sanyo Electric declines all responsibility for damages due to improper use of the camera, failure to adhere to the instructions given in this manual, or repairs or changes done by those other than a technician authorized by the manufacturer.
- Sanyo Electric shall not be held responsible for any damage caused by optional devices or consumable items used with the camera other than those supplied with the camera or those specified by Sanyo Electric.
- Sanyo Electric shall not be held responsible for any losses or loss of revenue resulting from the loss of data caused by the malfunction, or the repairing of a malfunction, of the camera.
- The images captured with this camera will differ in quality from pictures taken with a standard film camera.

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# HINTS FOR TAKING PICTURES

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Taking great pictures in difficult surroundings is easier than you might think. By keeping a few points in mind and choosing the correct settings, you can create photos that you'll be proud to display and share.

## Basic photography

### If images are blurred even when the autofocus is used

Your camera employs an autofocus function. When you snap a picture using the autofocus, the camera automatically adjusts the settings so that the image will be in focus. If you are getting blurred images even when using the autofocus, one or more of the following might be the reason.

#### ■ How the autofocus works

The autofocus is activated when the shutter button is lightly touched. Press the shutter button slightly, and the target mark will appear on the monitor to indicate that the autofocus has been activated. Next, continue to gently press the shutter button all the way to snap the picture. This two-step method is the way to ensure that your photos are perfectly focused.

#### ■ Reasons for unfocused images

- ① The shutter button was pressed before the image was focused.
- ② After the image was focused, the subject moved.
  - Even if camera focuses the subject once, if the distance between the camera and the subject is changed, the subject may become out of focus.
- ③ The focus setting is not set for the correct distance.
  - If you shoot a close-up subject with the camera set to the normal focus mode, or if you shoot a subject at normal distance with the camera set to the macro (close-up) mode (page 63), the image will not be in focus.

#### ■ Preventing blurred images

- ① Confirm that the camera is set to the correct focus mode for your subject.
- ② Hold the camera correctly, and lightly touch the shutter button.
- ③ Wait for the target mark to appear in the monitor, and holding the camera steady, gently continue to press the shutter button all the way down.

Following these steps for a gentle but firm pressing of the shutter button will ensure that you get beautifully focused photos.

## Photographing a moving subject

**Situation:** You would like to snap an action shot of a moving child or pet. The autofocus is activated, but because the subject is moving, the image may be blurred. In particular, when the distance between the camera and the subject is changing, it is difficult to lock the focus on the subject. Here are some hints for successfully capturing images of moving subjects.

### ■ Reasons for unfocused images

When the shutter button is touched lightly, the camera's autofocus works by determining the distance between the camera and the subject. Once the subject is in focus, if it then moves before the picture is snapped, the image may be out of focus. This often happens when you once lock the focus on a subject and then wait for the right moment to snap the picture. And, conversely, a blurred image may result if you press the shutter button all the way in one step in an attempt to quickly capture an action scene, thus failing to activate the autofocus in time.

### ■ Preventing blurred images (How to use the manual focus [page 65])

In addition to the autofocus, a manual focus mode is also incorporated in your camera. In the autofocus mode, the distance between the camera and the subject is automatically determined when you press the shutter button halfway. In contrast to this, with the manual focus mode, you manually set the focus by specifying the correct distance between the camera and the subject before taking the picture.

### ■ How to photograph a moving subject

- ① Set the camera's focus mode to the manual focus. Set the focus distance to the correct distance between the camera and the subject.
- ② When the subject is at the set focus distance, gently press the shutter button all the way down.

#### <Advantage of using the manual focus>

- Images can be quickly captured without waiting for the autofocus to activate.
- Because you are presetting the focus distance, the focus can be more accurate.

#### <Using the manual focus effectively>

- When photographing a moving subject, press the shutter button just before the subject reaches the focus distance, and the shutter will be released when the subject is at the correct distance.
- Use manual focus to avoid incorrectly focused images when there is an object between the camera and the subject you wish to focus on.

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## HINTS FOR TAKING PICTURES

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### Shooting with the scene function

#### Shooting portraits (portrait mode )

**Points:**

- Choose a background that doesn't detract from your subject.
- Move in close to your subject.
- Pay attention to lighting and how it affects your subject.

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**NOTE**

- If the background is distracting, it will not show your subject to his best advantage. Move in closer to your subject or zoom in so that the background does not compete with the subject.
- In portrait photography your subject is clearly the central figure, so try techniques that allow the subject to stand out.
- If light is coming from behind your subject (backlit), his face will appear dark. You can get a better picture by using the flash, for example, or changing the exposure setting.

#### Photographing moving subjects (sports mode )

**Points:**

- Match the camera's movement with that of the subject.
- Set the zoom to the Wide end (wide-angle).
- Don't be too hesitant to press the shutter button, or you'll miss the action.

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**NOTE**

- Tips to not missing those great action shots: Make sure you're holding the camera correctly. Keep the subject in the lens at all times, moving the camera with him while waiting for the right shot. Move your whole body—not just your arms—with the camera while shooting.
- Blurred images are more likely when the zoom is set to the Tele end than the Wide end. Set the zoom as close as possible to the Wide end.
- Learn to press the shutter button quickly yet smoothly the instant your photo chance occurs.

## Night photography (night view portrait mode )

### Points:

- Avoid camera shake.
- Increase the ISO sensitivity.

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### NOTE

- Camera shutter speed during night photography is considerably slower, so there is a much greater chance that your photographed images will be blurry. Use a tripod whenever possible, or if a tripod is not available, you can lean against a wall or pillar to help stabilize the camera.
- You can photograph your subject with the night scene in the background by using the flash. Be careful not to shoot too close to the subject, however, or your subject's face will appear too bright.
- After the flash operates, keep the camera and the subjects motionless for about 2 seconds.

## Photographing scenery (landscape mode )

### Points:

- Shoot using a high resolution.
- For zoom photography, use the optical zoom.
- Pay attention to picture composition.

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### NOTE

- When shooting with a wide-angle setting, or if you intend to enlarge the photo, the higher the resolution, the better.
- To zoom in on distant scenery, it's better to use the optical zoom. Using the digital zoom produces a coarser image. Hold the camera securely, keeping your elbows close to your body and making sure the camera is stable. Using a tripod or other means of stabilizing the camera will increase the likelihood of getting a clear photo.
- Don't forget to pay attention to picture composition; note perspective and be aware of how the placement of objects affects the scene.



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